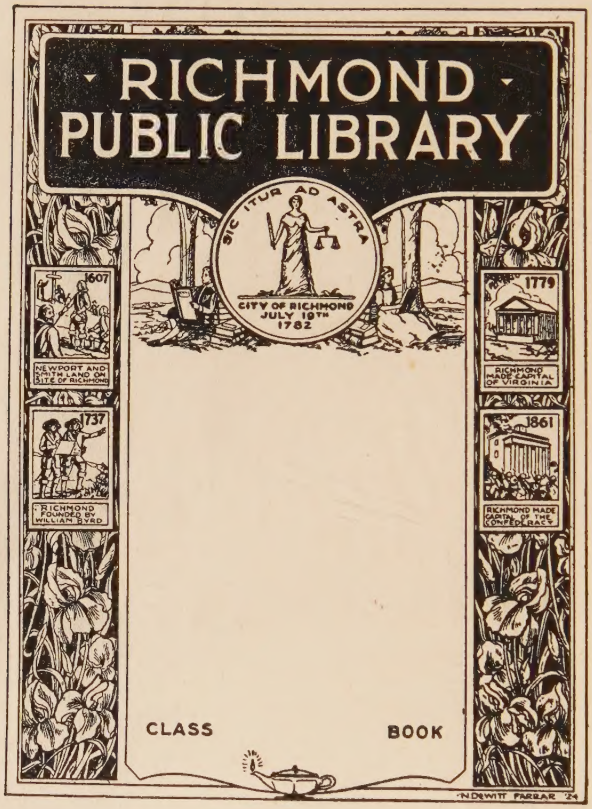
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ART AND ARCHAEOLOGY

THE ARTS THROUGHOUT THE AGES

An Illustrated Monthly Magazine

PUBLISHED BY

THE ARCHAEOLOGICAL SOCIETY
OF WASHINGTON

AFFILIATED WITH

THE ARCHAEOLOGICAL INSTITUTE
OF AMERICA

ART AND ARCHAEOLOGY PRESS, INC.

VOLUME XIV

JULY–DECEMBER, 1922

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VOLUME XIV (Nos. 1–6, JULY–DECEMBER, 1922)

CONTENTS

David Edstrom's Masterpiece, "Man Triumphant" — *Mitchell Carroll* — 51
Seven Illustrations

The Art and Archaeology of the Dalmatian Coast — *H. R. Fairclough* — 61
Twenty Illustrations

A Roman Colony in the Alps — *E. D. Pierce* — 83
Six Illustrations

The Preservation of Prehistoric Monuments in France — *George Grant MacCurdy* — 91
Six Illustrations

Notes from the Galleries — 97
One Illustration

The Chaco Canyon in 1921 — *Edgar L. Hewett* — 115
Eighteen Illustrations

An Indian Burial Mound (Poem) — *E. B. Cook* — 131

A Navaho Folk Tale of Pueblo Bonito — *Lulu Wade Wetherill and Byron Cummings* — 132

The Scientific Aesthetic of the Red Man:
II. The Fiesta of San Geronimo at Taos — *Marsden Hartley* — 137

Recent Archaeological Discoveries in Tennessee — *William Edward Myer* — 141
Eleven Illustrations

The Piasa Petroglyph: The Devourer from the Bluffs — *Tom English* — 151
Two Illustrations

The Flint Maker (Poem) — *Hartley B. Alexander* — 156

Notes from the Galleries — 157
Two Illustrations

The American School of Classical Studies at Athens — *Harold North Fowler* — 000

- Foundation, Organization, and Work of the School — 171
  Three Illustrations
- Excavations of Classic Sites — 184
  Nine Illustrations
- The Excavations at Corinth — 193
  Twenty-one Illustrations
- Excavations of Pre-Hellenic Sites — 226
  Five Illustrations
- Researches on the Athenian Acropolis — 233
  Six Illustrations
- The Publications of the School — 246
- The Opportunities of the School in the Byzantine Field — 250
  Four Illustrations
- The Excavations at Colophon — 256
  Three Illustrations

Pittsburgh as an Art Center:

- Introduction—"Pittsburgh as an Art Center" — *Samuel Harden Church* — 267
- Pittsburgh and the Pittsburgh Plan — *Frederick Bigger* — 269
  Eight Illustrations
- Pittsburgh Architecture — *Alfred B. Harlow* — 279
  Seven Illustrations
- Carnegie Institute — *Homer Saint-Gaudens* — 287
  Ten Illustrations
- Carnegie Institute International Exhibition — *John O'Connor, Jr.* — 301
  Six Illustrations
- Pittsburgh Artists Past and Present — *Penelope Redd* — 313
  Eight Illustrations
- Some Collections of Paintings in Pittsburgh — *Will J. Hyett* — 323
  Seven Illustrations
- Civic Art in Pittsburgh — *George M. P. Baird* — 331
  Eight Illustrations
- The College of Fine Arts, Carnegie Institute of Technology — *E. Raymond Bossange* — 337
  Six Illustrations
- The One Hundred Friends of Pittsburgh Art — *John L. Porter* — 345
  Four Illustrations
- The Art Society of Pittsburgh — *Edwin Z. Smith* — 349
- The Associated Artists of Pittsburgh — *Christ Walter* — 351

Archaeological Notes and Comments:

American School at Athens . . . 103
A Recently Discovered Babylonian Cylinder upon which is Inscribed a Proclamation of Nebuchadnezzar, King of Babylon . . . 104
Excavations of the American School in Jerusalem at Tell El-Ful . . . 104
Ancient America Art Revival in Paintings by San Diego Artist . . . 105
A Swiss Mystery . . . 105
The Etruscan Tomb of the Volumni near Perugia . . . 106
The Potted Gold of Croesus . . . 107
The XX International Congress of Americanists at Rio de Janeiro . . . 108
American School at Athens Notes . . . 163
First Indian Fair at Santa Fe . . . 164
Archaeologists Take Up Work in Tigris and Euphrates Valleys . . . 164
Legends of Carthage Declared to be Myths . . . 164
Egyptians Had Fine Surgeons in 1700 . . . 164
Pictures of 200 A. D. are Found in Syria: Ancestry of Byzantine Painting . . . 165
The XXth International Congress of Americanists . . . 165
The X International Congress of Architects . . . 165
The XXth International Congress of Americanists . . . 261
School at Athens: Letter from Prime Minister in reply to Mr. Root's Letter about the Gennadius Library . . . 261
General Meeting of the Archaeological Institute of America . . . 352
The Archaeological Institute of Yucatan . . . 352
Museum of the American Indian, Heye Foundation, Officially Opened . . . 352

Book Critiques:

A Text-Book of European Archaeology. By R. A. S. Macalister . . . 109
The Enjoyment of Architecture. By Talbot F. Hamlin . . . 109
Figurative Terra-cotta Revetments in Etruria and Latium in the VI and V Centuries, B. C. By E. Douglas Van Buren . . . 110
An Introduction to the Study of Terra Sigillata Treated from a Chronological Standpoint. By Felix Oswald and T. Davies Pryce . . . 110
The Art of Drawing in Lead Pencil. By Jasper Salwey . . . 111
Principles of Interior Decoration. By Bernard Jakway . . . 112
An Introduction to the Study of Landscape Design. By Henry Vincent and Theodora Kimball . . . 166
The Van Eycks and their Followers. By Sir Martin Conway, M. P. . . . 166
Let 'Er Buck—A Story of the Passing of the Old West. By Charles Wellington Furlong . . . 168
Andrea Della Robbia and His Atelier. By Allan Marquand . . . 262
Etruscan Tomb Paintings: their Subjects and Significance. By Frederick Poulsen (trans. by Ingebord Anderson) . . . 263

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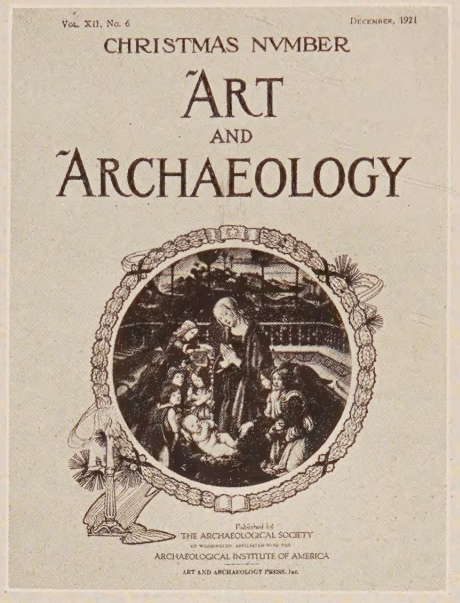

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May I present to you, with the Season's Compliments, the Christmas Number, and a 1923 Subscription to ART and ARCHAEOLOGY?

Sincerely

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ANNOUNCEMENT

The Christmas Holiday Number will be ready for distribution about the 15th of December, and will contain a variety of articles of especial interest for the holiday season, profusely illustrated. Among these are the following:

Archaeology and the Movies; Portrayal of Biblical Scenes,
By Edgar J. Banks.

The Pilgrimage Play at Hollywood, California,
By Harvey M. Watts.

The Passion Play at Oberammergau,
By Gertrude Richardson Brigham

The Gardens of Cashmir,
By Dudley S. Corlett.

Interesting Features for 1923

1. While the Editor was in South America, he arranged for various articles on the art and archaeology of Brazil and neighboring countries, notably one on "Art of the Brazil Centennial Exposition."
2. Art and Archaeology of the Jugo-Slav Kingdom, of Roumania, of Poland, of Austria, of Latvia, and other European countries.
3. Philadelphia Pre-Sesqui-Centennial Number, the third in the series of "American Art Centers."
4. Palestine Number, with illustrated articles on recent excavations.

ART AND ARCHAEOLOGY is primarily indebted to its regular readers for the extension of its circulation, and heartily requests you to remember the magazine when you make up your list of Christmas presents. Christmas cards sent on request.

Address: ART AND ARCHAEOLOGY, *Octagon House, Washington, D. C.*

OL. XIV, Nos. 1, 2 AUGUST, 1922

ART AND ARCHAEOLOGY

THE ARTS THROUGHOUT THE AGES

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APPRECIATIONS

How Our Readers Feel Towards Art and Archaeology

"The new ART AND ARCHAEOLOGY is superb. What other American art magazine approaches it?"—Frank Owen Payne, Brooklyn, N. Y.

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"As before I have stated, I cannot afford to miss one issue. Your March number was superb. Of course the Indian pictures are the main portion. I am happy that you give space to such pictures. There is not an artist in the Taos colony who could produce anything so truly spiritual. The spirit is there and truly moving in the Indian drawings."—Meta Lehmann, Santa Fe, New Mexico.

"Allow me to thank you warmly for the copy of ART AND ARCHAEOLOGY which comes to me with your compliments. It is certainly a charming publication and I have read it with very great interest. I envy those of you who are closely in touch with Greece and Greek art."—Edw. S. Dana, New Haven, Conn.

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"The beautifully illustrated number just received featuring the Lincoln Memorial has been much enjoyed throughout our office. Personally I prefer the numbers dealing with our own Southwest, which have a particular fascination for me; but you give us enough of these for a good balance, so everybody is happy. I envy you your opportunity to handle the delightful matter your magazine calls forth."—Mrs. Katharine A. Grimes, Associate Editor, *Southern Agriculturist,* Nashville, Tenn.

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CONTENTS

DAVID EDSTROM'S MASTERPIECE, "MAN TRIUMPHANT" . . . . *Mitchell Carroll* 51
Seven Illustrations

THE ART AND ARCHAEOLOGY OF THE DALMATIAN COAST . . . *H. R. Fairclough* 61
Twenty Illustrations

A ROMAN COLONY IN THE ALPS . . . . . *E. D. Pierce* 83
Six Illustrations

THE PRESERVATION OF PREHISTORIC MONUMENTS IN FRANCE . . *George Grant MacCurdy* . . . 91
Six Illustrations

NOTES FROM THE GALLERIES 97
One Illustration

ARCHAEOLOGICAL NOTES AND NEWS 103
Two Illustrations

BOOK CRITIQUES 109

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Myron Hunt, C. H. Chambers, Architects.

Photos by Bachrach, Washington

"Man Triumphant"—David Edstrom, Sculptor.

An inspired modern treatment of the Laocoön motive—three men in combat with a serpent. That struggle ended in defeat and death. Here we have, however, man triumphing over the forces of evil destiny.

ART and ARCHAEOLOGY

The Arts Throughout the Ages

VOLUME XIV JULY - AUGUST, 1922 NUMBERS 1, 2

DAVID EDSTROM'S MASTERPIECE, "MAN TRIUMPHANT"

By MITCHELL CARROLL

"In the Swedish Section the powerful and broadly monumental conceptions of David Edstrom dominated all others. Most modern sculpture is fictile, that of Edstrom is glyptic. He gets his effects from the hardest granite, and the ready tractability of clay."—CHRISTIAN BRINTON: Impressions of Art at the Panama-Pacific Exposition.

DAVID EDSTROM is both an artist and a seer—as a lover of the beautiful he wishes to portray in living marble his interpretation of life. His varied and interesting career has developed his spiritual vision and in his "Man Triumphant," the latest and noblest of his works, of which the model has been recently on exhibition in his studio at the Art Center, Washington, we have his endeavor to represent the human struggle after perfection against the forces of nature and environment.

Tremendous in conception, harmonious in composition and bold in modelling is this endeavor to express the victory of personality, through powers of soul over the forces of evil. The idea came to him, as he tells us, through the study of a classical masterpiece which portrays human defeat. His spirit revolted [illegible] contemplation of man's yielding to the forces of an adverse fate. He dete[illegible] then and there to portray instead in marble the Triumph of Man agai[illegible] most irrestible of obstacles, and after twenty years of study we have the revelation of his unfaltering conviction of man's invincible power through spiritual endowment over the forces that would drag him down.

The Laocoön group is an expression in marble of the pagan doctrine of surrender to fate. The priest of Apollo had endeavored to warn the people of Troy of the deceit that was being practiced upon them. In so doing he was fighting against the will of the gods, who had determined the doom of Troy. Hence the serpents of Poseidon are the instruments chosen to bring to nought his well-meant

FIRENZE – R. Galleria Uffizi. Laocoonte. (Copia di Baccio Bandinelli dall' originale antico.)

THE LAOCOÖN.

The Laocoon Group, the best marble copy of which is in the Vatican Gallery, Rome, was the work of Agesander, Polydorus and Athenodorus of Rhodes, who lived in the first century B. C. It is the last and most extreme example of Pergamene art—an effort to express exaggerated pathos by an actual representation of pain and agony. Lessing's essay, so named, on the limits of poetry, painting and sculpture, has given the work an importance far beyond its merits. Yet the technical excellence of the group, no less in composition than in execution, must be acknowledged.

endeavors. They come out of the Aegean, encircle in their folds the hapless priest and his two sons and crush the life out of them. The Trojans take this as a portent, admit the wooden horse filled with Hellenic warriors into the city, and ill-fated Troy falls. The sculptors have portrayed the supreme moment of their suffering, when the victims realize their hopeless struggle, and accept defeat and death.

How different by contrast are the young warriors of Edstrom, who stand back to back, grapple the serpent with confident mien and demonstrate man's ability to vanquish the powers of evil. Like the American heroes of Chateau Thierry and the Argonne Forest, they joyously grapple with Nemesis in the grewsome form of a huge serpent, and win the victory against all odds. What a magnificent Victory Memorial this will make!

Edstrom's masterpiece is an Epic in stone. There is a universal quality in this combat which applies to human struggle in all times and under all conditions. In this dynamic work these three invincible young giants stand for ideas as well as men, and are regarded by the artist as Initiative, Concentration and Tenacity. We have here the essence of the artist's optimistic philosophy, his belief in man's conquest of nature through his ability to wrest its secrets from her, and in his power to overcome the weaknesses of his own heredity by his God-given powers.

The Main Group of Edstrom's three young giants successfully struggling against the serpent.

The reliefs on the architectural base reveal the details and processes of this great idea. On one face of the pedestal we have physical man portrayed, the various stages of his progress through manual labor, through his brawn. The next represents the achievements of science, the supremacy of knowledge in its various aspects, without which labor is of small avail. Still another field portrays art and music, the mighty conquests of the aesthetic nature. Finally the fourth field shows the power of religion in the unremitting conquest of the

Myron Hunt, C. H. Chambers, Architects.

David Edstrom, Sculptor.

I. Thou Must.

The first relief, portraying victory through the attainment of physical power.

Myron Hunt, C. H. Chambers, Architects. *David Edstrom, Sculptor.*

II. I Must.

The second relief, depicting the achievements of man through science, the cultivation of the intellect.

Universe. Faith, Hope and Love are the spiritual forces that give man the victory.

In front of these reliefs respectively stand four heroic figures representing the evolution of the human soul. First, before the physical group is the figure THOU MUST, symbolizing the period of adolescence, when one learns that nature's laws are inexorable and must be obeyed. The second figure is I MUST, showing that science has taught the awakened individual he must conform. The third figure, I DESIRE, goes a step further in realization, showing the awakening of the higher spiritual powers through art, while the fourth figure, I AM, typifies the perfected human being attaining at last self-mastery and world-mastery, the final step in human evolution.

It is a daring venture to use such a traditional symbol as the serpent as he has done. Every religion has used the serpent as a symbol in one form or another. The mysteries of Nature and the evils that beset us are elusive and ever changing. The snake's peculiar shape, its deadly poison, its quick and silent movements suggest the hidden action of Fate and the subtle power of evil.

On the four sides of the architectural base of the monument are a series of figures and reliefs that classify and elaborate the means through which man gains ascendancy over the world in which he finds himself, so we shall treat them more in detail.

One side is devoted to the interpretation and glorification of man's physical being. We have depicted on the lower relief fatherhood and motherhood, athletes, blacksmiths and various other exponents of physical labor. Here the artist shows an exuberant vision of the simple normality in physical life. On the upper half of the base are four figures in low relief but somewhat taller. We see from left to right one woman sowing, the next carrying a jar, the third, Demeter, the goddess of agriculture, with her full horn of plenty, and finally the goddess Artemis with her bow, symbolizing the ascendancy of man over all other animals. This relief is a visualization of life as we are living it today, an artist's vision of physical man triumphant through the power of labor.

In the center of the relief we see a free, crouching figure holding one hand in a gesture of defense. This figure the artist interprets as THOU MUST, and shows our primitive unschooled self gaining power through obedience to law. Through necessity we are relentlessly driven to do many things contrary to our primary instincts and desires, yet essential for the final mastery.

On the second side of the monument we have a series of figures designed to suggest the various branches of Science, a series of compositions showing the potent conquests of nature attained through the acquirement of exact knowledge. From left to right on the lower relief we see Euclid explaining his discoveries in geometry, two men working over a tripod, and to the far right we have Copernicus and a group of men in animated discussion over a globe. The discovery by Copernicus that the world was round changed our whole conception of the universe. Science not only shows us the limits under which we must pursue our march through life, but also reveals the tremendous scope of our possibilities.

On the upper relief on this side appears from left to right a female figure looking through a telescope showing the enlargement of our mental horizon through Science. The second figure holds a dove in the hand and shades her eyes as she

looks upwards into space where we are now able to fly swifter than the birds. The third figure is holding her hand to her ear, showing how our capacities are expanded through the conquest of sound as in the discoveries of Bell, of Marconi, and finally of the illimitable possibilities of radio. The fourth figure is holding an incandescent light in her hand, symbolizing the marvellous developments of electricity.

In the center of this relief we find a tense erect figure with clenched hands. This figure the artist interprets as I MUST. It expresses Determination. It is worth while to learn to know the laws of nature that make us suffer because by knowing them we may divert them to our use. Just as we lead the unseen powers of electricity into definite channels, and convert this energy to specific uses, so we may control the unseen powers of human consciousness and cause them by power of will to flow in the channels of our own choosing.

The reliefs on this third side of the base are an interpretation of the aesthetic functions of man, his conquest of Nature through Art. All through nature in the petals of the rose, the warble of the nightingale, the murmur of the sea, we are ever cognizant of harmony, a law of rhythm which science cannot reveal, that we can only know emotionally.

On the lower relief, from left to right, we have Music, Sculpture, the Drama, a young man painting a vase, and other figures engaged in the dance.

On the upper relief the first of the four figures is Apollo, the god of lofty artistic aspiration. Next is Melpomene, holding some masks, the Muse of Tragedy. Next we have Eros following with his gaze the flight of his arrow that even penetrated the heart of Zeus, the greatest of the gods. Then comes Venus, the goddess of love and beauty. Love has always been the chief inspiration for Art.

In the center of this relief is placed a statue in the round, interpreted by the artist as I DESIRE. Here the human soul is not only awake to will and determination; it has caught a vision of the wonderful plan of conquest and with all its power it longs for achievement. This figure is relaxed and sweet. There is no tension; like the quiet prayer of a child, it longs for and expects fulfillment. Nature in all her terrific battle is lovely, gentle and kind.

The relief on the fourth side portrays the place of religion in Man's conquest of self and of nature. On the lower relief we have from left to right figures in attitudes of devotion, a prophet healing a sick woman, a ritualistic religious procession leading up to an altar for sacrifice by a priest. This relief might symbolize any form of religious activities—heathen, Jewish, and Christian.

On the upper half we have a nun in an attitude of humble devotion. The second figure is John the Baptist, symbolizing the evangelical type of the devoted life. The third figure is the hermit, representing the life of contemplation. The fourth figure shows a high priest, the ritualistic side of human worship.

The last and supreme figure on the fourth side of the relief is the female figure in the center. It represents the final stage in the attainment of personality and is styled by the sculptor, I AM. In the early struggle we are driven like slaves under the harsh command THOU MUST. With pathetic realization of the categorical imperative we bring forth an anguished I MUST. Then in time

Myron Hunt, C. H. Chambers, Architects.

David Edstrom, Sculptor.

III. I DESIRE.

The third relief, portraying the victories of man through art, the cultivation of the emotional nature.

Myron Hunt, C. H. Chambers, Architects. *David Edstrom, Sculptor.*

IV. I Am.

The fourth relief, portraying the final conquest of evil through religion, the cultivation of the heart and the will.

one's eyes perceive the plan and order of life and with passionate longing to fulfill one's destiny, I DESIRE. After toil and effort of stern fulfilling of duties great and small, come moments when in exultant assurance there comes to us the realization of final attainment, of union with the divine, expressed in the phrase I AM.

Edstrom's "Man Triumphant" when completed will stand fifty feet high. The crowning main group showing the victorious youths in battle royal with the serpent will be twenty-five feet high from the base to the crowning top of the snake's head. The lower reliefs will be seven feet high, the upper reliefs about twelve feet. The four free figures are to be eight feet in height. According to the proportions thus planned the marble base will be twenty-five feet high. The crowning group will be in bronze, the lower and upper reliefs carved in the marble base. The heroic figures in front of the lower reliefs will be in bronze, thus standing out free from the base though very close up against it. These figures are not only essential to the symbolism of the composition as a whole, but also break the monotony of the square sides, and add romance and mystery to the lower reliefs, as will readily be perceived by a study of the reproduction.

This Swedish-American sculptor of the Middle West has attained pre-eminence through almost unsurmountable difficulties, and his masterpiece, as an interpretation of his own career, reveals the universal law of progress. Emigrating at the age of seven with his parents from his native land, he spent the next fourteen years of his life in Iowa in the hardest kind of labor. A mechanic at twenty-one with only a common school education, the compelling voice of genius bade him lay aside his tools, and he made his way as a stoker on a vessel bound for Sweden, where he starved and studied first in the Technical School and then in the Royal Academy. Afterward he worked in most of the art centers of Europe and recognition came rapidly to him. He has successfully exhibited in London, Paris, Florence, Vienna, Munich, Stockholm, besides New York, Los Angeles, Washington and elsewhere in the United States.

Edstrom believes and preaches that "American Art must grow out of the soil of America, must be created by America, of America, for America. It must conform to and find its means of existence in the nature, life, traditions and ideals which constitute and govern America."

What a magnificent exponent of the American ideal is this colossal monument! It should be erected in Washington, in the very heart of the country, typifying our best ideals, our highest principles, our greatest achievements, our abiding faith. It would prove to be an international inspiration perpetuating the unselfish idealism of the World War, the League of Nations, the Disarmament Conference—a mighty reminder to mankind that the "fault lies not in our stars, but in ourselves that we are underlings," that "self-knowledge, self-reverence, self-control—these three alone, lead life to sovereign power;" and that nations, as well as individuals, may win the ultimate attainment of their highest aspirations through the processes of development portrayed in this masterpiece of sculpture.

Octagon House,
City of Washington.

THE ART AND ARCHAEOLOGY OF THE DALMATIAN COAST

By H. R. Fairclough

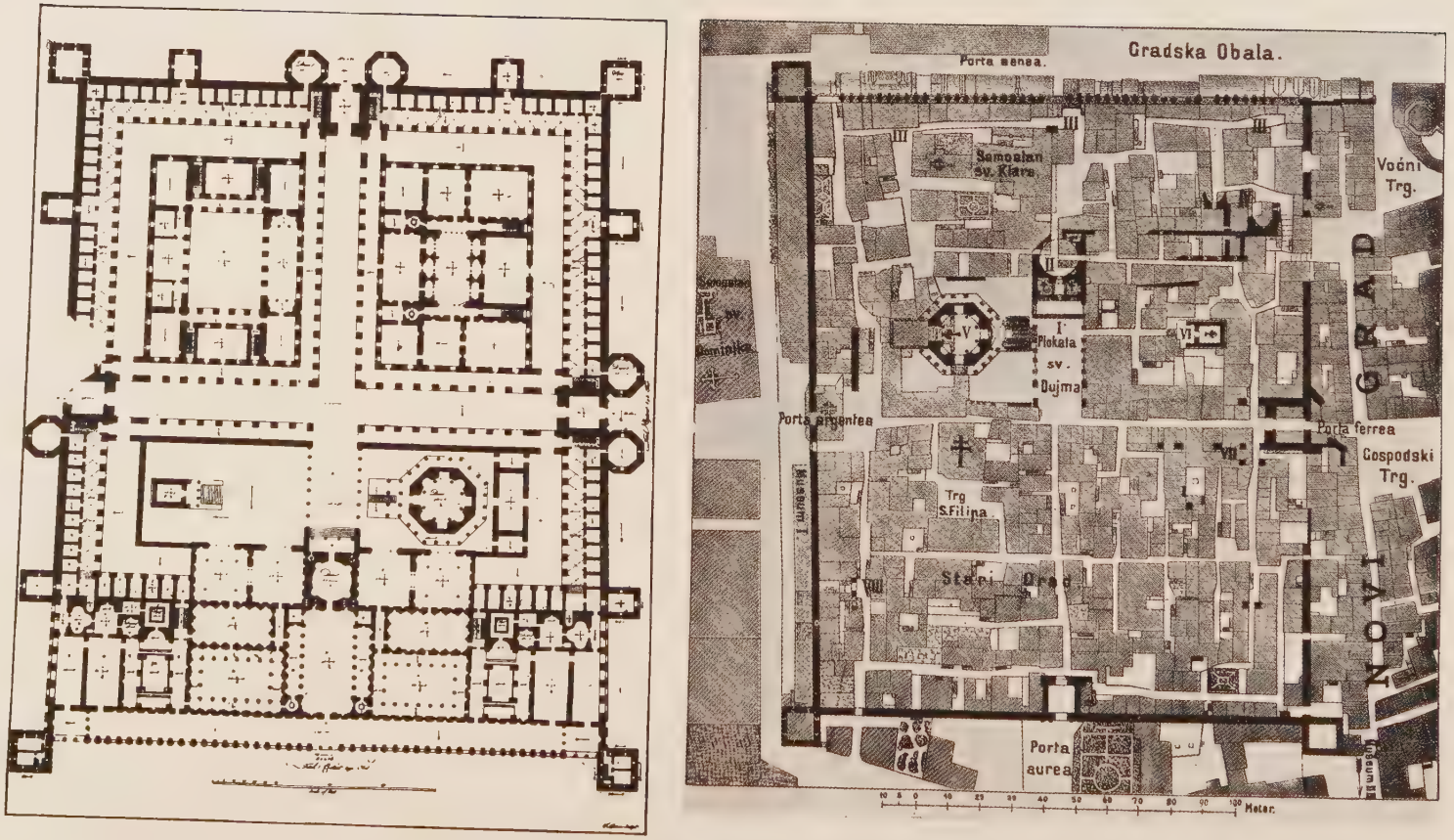
ONE of the most remarkable and intensely interesting regions in southern Europe is the eastern coast of the Adriatic. In striking contrast with the low shore line of the Italian peninsula lying opposite, Dalmatia rises precipitously from the blue arm of the Mediterranean, the cloud-capped mountains thrusting themselves so violently into the sea that oftimes there is not even a natural ledge left for a highway, while rocky islets indicate that the lofty Dinaric Alps, which traverse the interior from north to south, are still uplifting their lesser peaks from the midst of the azure depths. And this coast is deeply indented with wonderful bays, into which gush the fresh waters that spring perhaps from mysterious caverns in the side of cliffs or bubble up strangely offshore amid the sea, thus winning an outlet after their long subterranean course under the limestone ridges.

It would be hard to find a more picturesque region or one which has a more delightful climate. The flora is semi-tropical. The palm and cactus flourish, oranges and lemons are abundant, the vine and the olive are everywhere in evidence, and rarely will a tourist find richer or more varied floral displays than in the lovely gardens of Cannosa, where grow the largest plane trees in Europe.

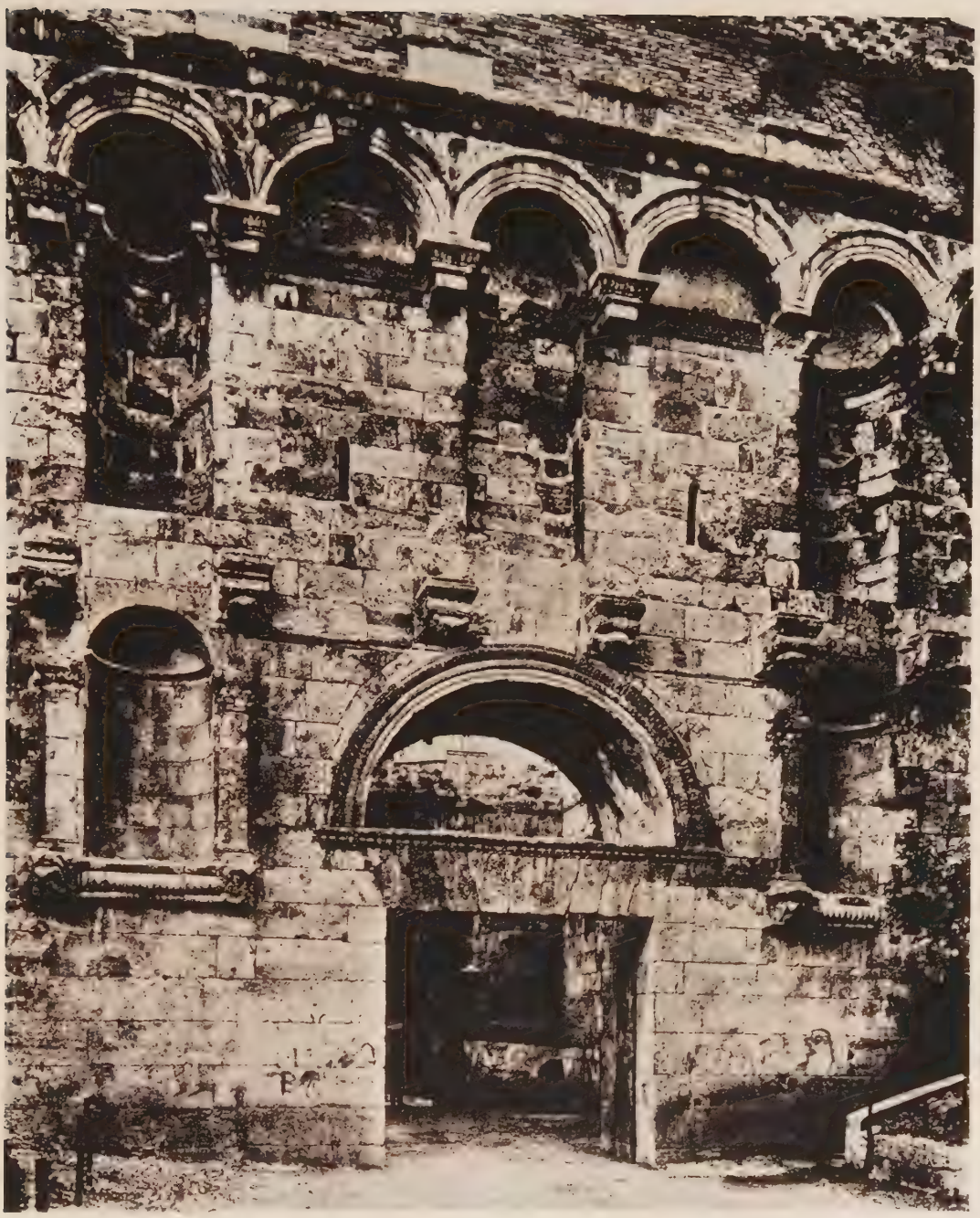
But Dalmatia is also interesting because of its history and its art. Here in ancient days lived a people of the Pelasgic stock, a portion of the great Mediterranean Race, which in Neolithic days spread over the whole of southern Europe. This Illyrian people, branches of whom were the Liburnians, the Carnians, and the Veneti, ancestors of the later Venetians, still, it is believed, form a substratum of the population of Dalmatia, though they are seen least disguised in the Albanians to the south. As to the northern Istrians, tradition has it that they came from the Black Sea, and perhaps we may connect with some such migration the story of the Argonauts under Jason, pursued by the Colchians.

As early as the 9th century B. C. Ionian Greeks are said to have settled among the Istrians, but the period of Greek colonization along the coast in general seems to have begun with the 7th century B. C. Hence the founding of Black Corcyra, now Curzola; of Epidaurum, or Ragusa, the home of Aesculapius; of Tragurium, now Traü, settled by Sicilian Greeks; of Issa or Lissa, where Lesbians made their home; of Ambrachia, or Brazza; of Salona, Aspalathos, and many other places whose Greek names have survived unto the present. Greek pottery, coins, and inscriptions have often been found along this coast.

In the 3rd century B. C. the Greek colonists in Dalmatia, an easy prey to the attacks of fierce Illyrian pirates, appealed for protection to the new western power of Rome. A picturesque figure here appears for a moment across the page of history and the Illyrian Queen Teuta, whose capital was at Scodra, now Scutari, in Albania, becomes involved in two wars with the Romans, who defeat her in 219 B. C.



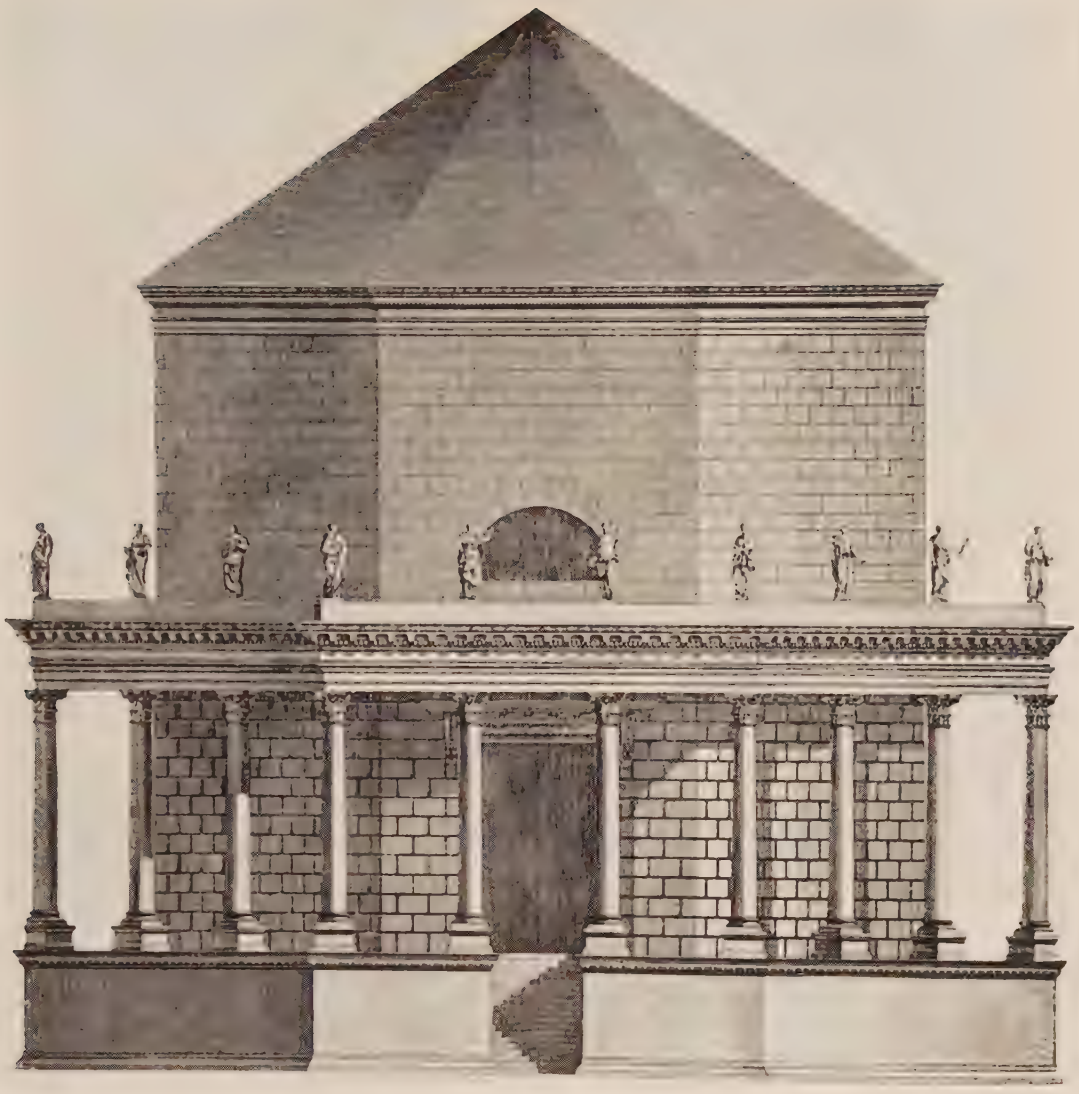
SPALATO: Plan of Palace of Diocletian.



SPALATO: Golden Gate of the Palace of Diocletian.

SPALATO: Façade of the Vestibule, reconstruction of Robert Adam.

and annex part of her kingdom. Istria was conquered in 178 B. C. and shortly after that date Pola became a Roman colony. In the civil wars it sided with Pompey and was, therefore, destroyed, but it was restored by Octavius in 33 B. C., and under the Empire became very prosperous. Augustus rebuilt its temples, one of which is still beautifully preserved and serves today as a museum. The chief glory of Pola, however, is its splendid amphitheater, whose



SPALATO: Mausoleum of Diocletian, reconstruction of Robert Adam, now the Cathedral.

exterior is almost perfect but whose interior has been despoiled to furnish material for other buildings.

Tergeste, the modern Trieste, received a Roman colony in 129 B. C. The hill where the cathedral now stands was the center of the Roman settlement, and the careful observer may detect in the church building many Roman architectural remains, but the principal memorial left in Trieste from Roman times is the so-called Arco di Riccardo, which goes back far beyond Richard Coeur de Lion, from whom it is named, and far beyond Charlemagne, with whom legend also associates it.

The province of Illyricum was created in 59 B. C., when Julius Caesar became its first governor, established his headquarters at Salona and built the first

SPALATO: Side view of the Cathedral.

SPALATO: Temple of Jupiter, now used as a Baptistery. Interior view.

SPALATO: Peristyle of Diocletian's Palace.

of those great roads, which in time connected the Roman towns of the coast with the interior not only of Illyricum, but also of Macedonia, Moesia, Pannonia and Dacia. By the time of Trajan, the whole Balkan territory was completely Romanized, while the Dalmatian coast towns could hardly have been distinguished in speech, religion and customs from the Latin towns of Italy itself.

Both Trieste and Pola fall within the Italy of Augustus, and it is interesting to find that in the geography of Dante Pola is the most eastern of Italian cities. Fiume, which was once an old Liburnian town, and under the Romans was known as Tersatica, never belonged to Roman Italy.

The conquered Illyrians were not without power and influence over the conquerors. Historians of Rome commonly devote a chapter to the Illyrian Emperors, some of whom had an extraordinary career. Thus, the later Claudius, Aurelian, Probus, Diocletian, and Maximian were all sons of Illyrian peasants, while Constantine the Great can be included in the list, for he was born at Naissus, now Nish, and his mother was a native of the region.

SPALATO

Of these emperors, Diocletian has left the deepest impress upon his native

SPALATO: Temple of Jupiter, now used as a Baptistery.

land. Born at Salona—though one tradition gives Doclea in Montenegro as his birthplace—Diocletian rose to be the greatest figure in the then known world. He is remembered by us chiefly as a persecutor of the Christians, but aside from this offense, which after all is mainly to be charged to his associate and evil genius Galerius, he is to be commended as a very able executive, who reformed the coinage, abolished many monopolies, suppressed alchemy and established a scale of maximum prices. He was the first to assume the diadem and the first to realize that the Empire had become too colossal and unwieldy for successful administration. He, therefore, divided it into two parts, and drawing the line of cleavage through the Province of Illyricum, he gave Eastern Illyricum to the Eastern Empire, and Western Illyricum, including Dalmatia, to the Western. This step has had far-reaching consequences, for while the Eastern countries became Greek in speech, those of the Western Empire remained Latin, and later, when the great schism occurred in Christianity, the Eastern Empire became Greek Catholic, the Western remained true to Rome. Hence, today the eastern Serbs are prevailingly Greek Orthodox and use the Cyrillic alphabet, the western Croats and Dalmatians are prevailingly Roman Catholic and use the Latin alphabet.

Diocletian was only 59 years of age when in 305 he laid down his high office and retired to the palatial home which he had erected in his native land. Here he spent the remaining eight years of his life, and though importuned by

ZARA: Interior of Cathedral.

ZARA: Façade of Cathedral.

Maximian to return to Rome and resume his sway, he made the great refusal, accompanying it with the famous remark that if he could but show Maximian the cabbages which he had planted with his own hands, he would no longer be urged to accept so thankless a task as that of imperial power.

Diocletian's palace is still wonderfully well preserved and its general plan can be easily traced. It comprises nearly ten acres of a wall enclosure, which forms an irregular oblong, the length on the east and west sides being nearly 700 feet and the breadth on the north and south ends 530 and 550 feet respectively. The walls are 6½ feet thick and vary from 60 to 80 feet in height. There are three gates to the enclosure, the most striking being the Porta Aurea at the north, to which the road from Salona leads. The south wall faces the sea, which in ancient times washed its base, and here a doorway gave access to the palace from the water.

ZARA: S. Donato. Interior view.

In ancient days, and conditions are much the same today, a visitor entering by the Porta Aurea would have found himself in a street 36 feet wide, which led between low arcades to the center of the enclosure. On either side were doubtless the quarters for the soldiers, slaves, retainers, and officials of the ex-Emperor. At the central point a cross street ran east and west, showing a view between arcades to the right and to the left. But on continuing to the south the visitor would have found himself in a stately peristyle between rows of lofty columns, leading directly to the vestibule of the palace apartments. On either side he would have looked into courts enclosing buildings, to the right the temple of Aesculapius and to the left the imperial Mausoleum, while if he had passed into the vestibule, then crowned by a lofty dome, he might have reached the atrium beyond, a handsome reception room, looking out over the sea and adorned with sculptures and paintings. On either side of this would have been the private rooms of the imperial family.

Here then is an extraordinary example of Roman domestic architecture, which fortunately for us was visited by a distinguished English architect in the middle of the 18th century. Robert Adam's elaborate description of the palace was published in 1764 and gives many illustrations of interesting details. We must remember that when the neighboring city of Salona was destroyed in 639, the inhabitants conceived the idea of taking up their abode in the old palace, then three centuries old, and so this great building, which had been erected to be the home of a single prince, became by reason of its size and solidity, a home for the population of a whole city. Hence arose the town of Spalato, which aside from the two main streets I have mentioned, has only narrow, dingy alleys separating the shops and houses, but which has an open piazza at the entrance to the peristyle and has converted the two buildings which stood in separate courts, into a Christian Cathedral and a Baptistery.

In the erection and preservation of this palace of Diocletian we face the great central fact in the architectural history of Dalmatia, for not only is the palace the most remarkable structure in the country, but its influence on the later buildings of the coast cities, ecclesiastical and civil alike, has been most profound. Let us mention some of the features to be observed.

The Porta Aurea is adorned with miniature arcading, which seems to be the first illustration of an architectural embellishment that figures largely in the Romanesque and Gothic work of later times and was perhaps directly imitated by Theodoric at Ravenna. In Zara the main façade of the handsome cathedral shows its influence, as also do the eastern and southern sides of the exterior of S. Grisogono.

The small Baptistery of Spalato (only 27½ by 16 ft.) has a remarkable barrel-vaulted ceiling of huge stones, which we shall find copied at Zara and Sebenico. The converted Mausoleum, though octagonal on its exterior, has a circular interior crowned by a dome. The inner wall is divided into bays by detached columns, two orders in height, the lower of granite, the upper of porphyry. The upper frieze shows *amorini* or cupids engaged in various pursuits of daily life, and reminding us of the charming figures that adorn the House of the Vettii in Pompeii. The general plan of the Mausoleum doubtless inspired the Baptistery at Zara, while the double orders and frieze of

ZARA: S. Grisogono (east end).

the interior are echoed in the beautiful chapel of the Blessed Orsini at Traü.

But the chief archaeological significance of the palace lies in another feature, for it is the earliest important illustration (an example may be seen at Pompeii) of the use, on a large scale, of columns instead of piers to serve as a direct support of arches without the intervention of a lintel or cross beam. This may be seen in the cryptoporticus adorning the sea wall, and in the entrance to the vestibule, but especially in the peristyle, where successive arches spring boldly from the capitals of Corinthian columns. This is a very remarkable fact in the history of architecture and marks the beginning of a new era, when the rules of antiquity are relaxed and a movement begins in the direction of modern styles. Here, says Professor Freeman, is perhaps the greatest step ever taken in architecture, "the beginning of all the later forms of consistent arched architecture, Romanesque, Gothic, or any other."

Two hundred and twenty-two years after Diocletian's death, Dalmatia became attached to the Eastern Empire, and what little impression was made upon the land by Byzantine culture belongs to the five centuries following. It is exemplified in the Christian basilicas of Salona, in the Duomo of Trieste, and in the S. Donato and the Baptistery of Zara.

During the same centuries other influences, however, were at work, which were destined to have a much more permanent effect on the land than Byzantium. In 639 a host of Avars swept down upon the coast and destroyed a number of Dalmatian cities, including Salona. This, as we have seen, led to the occupation of Diocletian's palace. Salona had been the seat of a bishopric, which was now transferred to Spalato, the first Bishop of Spalato being created as early as 650 A. D. Henceforth the history of Spalato centers about the Cathedral, into which the Mausoleum was now transformed. The principal change effected in the course of time was the addition of the beautiful campanile, now the most conspicuous feature of the town. It is Romanesque in style and dates from the early 13th century.

It was in the same century as witnessed the destruction of Salona that the Serbo-Croatians first migrated into the Balkan peninsula. The old Illyrian population of the interior soon became largely absorbed into the new stock, but the city states along the coast still retained their Roman character, as well as their independence, for centuries afterwards. Even today many Roman family names are found in use along the coast, surviving from the Roman period, even as a certain number of Greek names, like Grisogono, Andronico, Lascaris, and Paleologo, testify to a Greek origin, whether Byzantine or Hellenic. It must be remembered that the Slavic migration affected the country districts much more than the cities, for the Slavs were primarily an agricultural people. and what they wanted was land to cultivate. Even today the Italian population of Istria and Dalmatia is chiefly confined to the towns, while the rural population of the neighborhood is mainly or wholly Slavonic. The reason why the more southern Dalmatian towns also are today predominantly Slavonic is due to the pressure exerted upon the country people by the Turks, who after the fall of Constantinople in 1453, made their way westwards and forced the natives to seek refuge in the fortified towns of the coast. Thus in the 16th and 17th centuries Ragusa was

SEBENICO: Interior view of Cathedral.

often threatened by the Turks, and Cattaro was twice besieged by them.

The Venetians did not begin to establish themselves in Dalmatia proper before the 11th century, and it should be distinctly understood that however much Venice has left her mark upon the whole coast in her art and architecture, yet the Latin character of these maritime cities is due more to ancient Roman tradition than to Venetian domination. Even Trieste, which lies so near to Venice, was never under Venetian authority except for very brief periods, and throughout her history she always looked upon Venice with fear and hostility. As to Pola, she was still, in the 13th century, largely controlled by an old Roman family, the Sergii, whose name may be seen on an ancient triumphal arch dating from imperial times, and in the next century, during the struggle between Venice and Genoa, she attached herself to the latter. Ragusa was an active rival of Venice at all times, and Cattaro was not reduced to submission until the 15th century.

Zara

Of all the coast cities the one that became most completely Venetian in character was Zara. This old Liburnian town, in which Rome had planted a colony as early as 178 B. C., had grown into a prosperous imperial city. Like Valona, however, she was destroyed by the Avars in the 7th century, but having revived, she excited the envy of the Venetians, who reduced her by force in 1202. The Crusaders who assisted in this unholy exploit were punished by excommunication. Henceforth, throughout the middle ages, Zara was the most important city of Dalmatia, and therefore the principal object of dispute between Venice and Hungary, a new power to claim dominion over this coast.

Owing to its history, the Roman remains in Zara are less numerous than one would expect. There is a Roman archway and an occasional Roman column, while the museum in S. Donato contains numerous Roman inscriptions and fragments, but the main archaeological interest in Zara is in her churches, which represent various periods from the 8th century onwards. Thus S. Donato itself is a round Byzantine church, erected on a solid Roman pavement. It is divided into two stories, the upper one being independent of the lower, and having its own entrance from the exterior.

The Cathedral is a handsome Romanesque structure with a beautiful western façade. In the interior, which is basilican in plan, piers and columns alternate to support the arcades, a characteristic also found in S. Grisogono. The adjoining hexagonal Baptistery is strongly reminiscent of the Cathedral at Spalato.

Sebenico

In Sebenico the Slavic element is much stronger than in Zara, yet the architecture of the place remains strikingly Italian. The Cathedral is a most remarkable structure. Absolutely no timber or brick has been employed, but it is built wholly of stone, marble and metal. It has a stone vaulted ceiling which serves for roof as well, a mode of building which shows the direct influence of the Baptistery at Spalato. The general architectural treatment, however, is a curious but pleasing mixture of Gothic and Renaissance forms.

Traü

In Traü, the ancient Tragurium, we have a city which Pliny mentions as famous for its marble, and which Constantine, writing in the 10th century, describes as still preserving its Roman

TRAÜ: Principal Portal of Cathedral.

RAGUSA: Rector's Palace.

character. Like other cities of the coast, this, too, in the middle ages was wooed and won perforce by Venetians and Hungarians alternately. The great glory of Traü is its cathedral, which, succeeding to a church founded by Constantine the Great, revived the basilican form of nave and aisles, with a very fine narthex or porch across the western end. Here, too, is a campanile, only one, however, of the two originally intended to be built. This cathedral is the finest example of the Romanesque style in Dalmatia and its most remarkable feature is the magnificent western portal, perhaps the most glorious specimen of its kind in mediaeval art. Though Romanesque in general design, yet certain features, such as a gabled pediment traced upon the wall above the central arch, and the quaint figure of S. Lorenzo standing within the enclosed space, indicate a transitional period. The Gothic campanile is, of course, considerably later in date.

RAGUSA

Of all the Dalmatian cities perhaps the most interesting, and certainly the most beautiful, is Ragusa, which in the 7th century succeeded to the old Epidaurum (Ragusa Vecchia) on the destruction of the latter by the barbarians. Even in the 10th century Constantine describes Rausium, or Ragusa, as a Roman town in the midst of Slavs.

At an early date Ragusa advanced rapidly in power and importance, and throughout the middle ages she had an

RAGUSA: Cloister in Dominican Convent.

RAGUSA: Court in Rector's Palace.

CATTARO: Façade of Cathedral.

independent position, which was barely second to Venice herself, her foremost rival. She made commercial treaties with the great naval powers of the time and her ships were to be found in the most distant ports. She is famous as being the first European city to renounce the slave trade and the first to establish a foundling hospital. Today she still has the charm of a mediaeval city, girt with walls and crowned with battlements, while set in the midst of exquisite scenery.

Ragusa has suffered much from earthquakes, and her buildings have therefore undergone many changes. Today the most interesting structure in the charming town is the Rector's palace, which curiously enough has a façade in which Gothic windows stand above Renaissance arches. This, of course, is due to a reconstruction. One of the splendidly carved capitals shows the dignified figure of Aesculapius, the patron deity of olden days. The 14th century cloisters of the Dominican and Franciscan convents are delightful specimens of late Romanesque and Dalmatian Gothic.

One can hardly find in all Europe a more picturesque region than the Bocche, where the famous Mt. Lovchen, so dear to the Montenegrins, keeps sentinel above the land-locked waters of Cattaro. Here there are towns of great antiquity, for Cattaro is the old Ascrivium, which Pliny mentions as a town of Roman citizens, and a few miles away is Risano, the Greek and Roman Rhizon, the city to which the Illyrian Queen Teuta retreated after her defeat in 229 B. C.

CATTARO

The old cathedral of S. Trifone in Cattaro has an impressive west front with two campaniles, fulfilling in this respect a plan which the architect of the Traü cathedral had never completed. The interior shows the same alternation of piers and columns as was noticed in the Duomo of Zara, but the most striking feature is the splendid baldachino over the high altar with the silver pala behind. When I last visited the cathedral it was on the occasion of high mass and I learned two interesting facts. I was told that the venerable Bishop who was officiating, had translated Dante into Serbian and that the liturgy he was using was the old Slavonic. Here indeed, I thought, is the point where East and West truly meet. Slavic virility and Italian culture will make a combination which will surely play a most important part in the renaissance of unhappy Europe.

Stanford University, California.

A ROMAN COLONY IN THE ALPS

By E. D. Pierce

LIKE her older invaders, Hannibal and Napoleon, we crossed into Italy over the Alps, scorning the present day tunnels but making good use of another modern convenience—the motor-bus. Our journey therefore was made more rapidly than that of the historic conquerors who had to plod wearily along with their mules and elephants. Truth forces me to admit that we did not follow directly in their footsteps as they presumably crossed over the great St. Bernard Pass while we entered by way of the Little St. Bernard. Both passes were used by the Romans and some historians have tried to prove that Hannibal did enter Italy by the route we followed. Even if the Carthaginians preferred the other route, it is certain that Julius Caesar used the Little St. Bernard on his journeys into Gaul and the Roman remains along its course are almost as important as those of its greater neighbor. Either route would have taken us to our destination,—Aosta, the Augusta Praetoria of the Romans.

Very little is known of the valley of Aosta before the first century B. C., when it came into contact with the Romans. Its inhabitants, the Salassi, were a Celtic people who had become very powerful and turbulent in the latter days of the Republic, controlling both the passes that branch off from the end of the valley where Aosta now stands; the little St. Bernard over the Graian Alps and the great St. Bernard over the Pennine Alps. The Romans of the earlier Republic had deemed it sufficient to found a city, Eporedia (modern Ivrea), at the base of the mountain valley to prevent the Salassi carrying on raids into the great northern plain of Italy. The numerous punitive expeditions sent against them show that this was not an effective check. In any case it was not sufficient for Augustus, who was determined to establish safe lines of communication with the newly organized regions of Gaul. In the years between 28 and 15 B. C. he succeeded in carrying out his general plan of having separate groups of two fortified cities in connection with each of the main Alpine passes—a smaller city at the head of the narrow valley that led to the pass from the Italian side; and a larger city at the lower end of the valley where it opened out upon the Italian plain. The most important of the passes in Republican times had been those over the Mt. Genèvre and Mt. Cencis, which were approached by the same road from the plain as far as Susa, whose command of both passes led to its being strongly fortified and given the name of *Italiae Claustrum*.

Susa and Turin formed the western unit in the plan of Augustus. The next, both in point of time and geographical position, was the group of Augusta Praetoria (Aosta) and Eporedia (Ivrea), which stood respectively at the upper and lower end of what is now called the Val d'Aosta. This valley, through which the glacial stream of the Dora Baltea flows, is often not more than two miles wide, and stretches northwest for some 60 miles from the opening of the great Po valley. Early in the first century B. C. the Romans discovered that the passes over the Alps in the Salassi country were among the best leading into Helvetia and Gaul and that it would be necessary for the

View of Val d'Aosta below the town of Aosta.

Republic to control them. As soon, therefore, as the commercial route of Susa had been made secure Augustus undertook, about 25 B. C., the permanent subjugation of the Salassi. This task was entrusted to Terentius Varro Murena, as the Princeps himself was engaged in Spain and Gaul. Varro apparently did not fight a pitched battle with the Salassi but worked his way up the valley until he reached the spot where Aosta now stands and there built his camp. With the whole valley at his mercy he took the villages one by one, capturing the men and forcing them into military service and selling the women and children as slaves. The lands of the Salassi were seized and divided among the veterans and other Roman colonists.

On the site of his camp Varro founded the Roman colony, Augusta Praetoria Salassorum, naming it for the Princeps and the three thousand veterans of the Praetorian guard who were assigned to it with their families. The modern town of Aosta still conforms to the shape and plan of this colony, which was modelled directly on that of a permanent camp and the Roman remains here are in a better state of preservation than in any other Roman fortified city. The town forms a rectangle 2,440 feet long, which is the normal maximum length of a Roman camp-city, but its width, 1,920 feet, although wider than the normal of 1,600 feet, is narrower than Turin. Its principal gateway, the Porta Praetoria, faces towards Rome; and in front of it, at a distance of 366 meters, stands the colony arch of the city. The remains of the north and south gates have also been discovered, showing that Aosta, like Turin, had four gates, but, while those at Turin were uniform, those at Aosta differ in size, the smaller ones having but a single archway, while the principal gates had three openings. This may be explained by the difference in the width of the streets leading to them, for in Augustan times the *decumanus* was forty feet

Arch of Augustus, Aosta.

wide while the *cardo* was only twenty feet in width.

The Roman remains at Aosta are extremely important since they belong almost exclusively to the republican or early Augustan era—a period which is not extensively represented in the ruins of other parts of Italy. The roads, bridges, city-gates, walls and theatre were all built at the same time and apparently so well built that no changes were needed for centuries, consequently no buildings of later Roman times have been erected above them. By order of Augustus a city with all the necessities for permanent residence and comfort was erected on a site where there had been only a military camp surrounded by fields. We have here then an excellent example of the way in which the Romans went about their city building when there was no preceding settlement to interfere with their plans.

As one approaches Aosta from Ivrea along the old Roman road, the first monument is the Arch of Augustus, which was erected on the sacred *pomerium* line that encircled the walls, marking the boundary between country and city jurisdiction. Although the modern road is about two metres higher than the original level of the passage and the arch has lost its superstructure above the triglyph frieze, thus altering the proportions, it is still one of the most impressive of all Roman memorial arches. This is due not only to its size but also to its simplicity, since it is without sculptural decoration, being built throughout of carefully squared blocks of a sort of natural pudding stone quarried near the city. It is not, strictly speaking, a triumphal arch, since Augustus had refused the triumph decreed to him by the senate for the victories over the Salassi, accepting instead the tribute of an arch erected in the Alps. This arch then was a monument put up in honor of the founder of the colony and to mark the final acquisition of the region by the Romans,

Praetorian Gate, Aosta.

just as the arch had been erected at Susa to commemorate the treaty between Rome and the tribes who joined her alliance there. In design the arch at Susa is so much more exquisite and delicate that it must be placed in a class exactly opposite to the heavier more majestic arch at Aosta. The sculptured reliefs at Susa are so extremely poor that a closer view of the arch is not very satisfactory. Apparently the monument was designed by a good Roman architect and the decoration added by some local carver. The Aosta arch has no sculptured frieze but is a clever adaptation or combination of Greek elements with its Corinthian columns under a Doric entablature. The archway is just the width of the road and is quite low, as it springs from two very short pilasters. The space between the opening and the entablature is filled by big wedge-shaped blocks decorated with mouldings which followed the line of the curve. There is no keystone to the arch. Across the vault a strong iron bar supports a large crucifix placed there some six hundred years ago.

In Roman times a straight avenue, almost twice the width of the consular road, led for 1200 feet from the Arch of Augustus to the Porta Praetoria, the main gate of the city. At present the Praetorian gate is shut in on all sides by the surrounding buildings and the arches are awkwardly shortened since the pavement of the street is about ten feet above the level of the ancient roadway. In spite of this it is generally conceded to be one of the largest and most handsome Roman gates now extant. It is a double gate enclosing a square court large enough to hold a considerable number of troops for defense or for a sortie. At the same

Back wall of the Roman Theatre, Aosta.

time this arrangement made it very difficult for an attacking enemy who, after forcing the first gate, would be exposed to a hail of missiles from the defenders on the upper floors above the court. The two towers which originally flanked the gateway on the north and south have been torn down to furnish building material, some of which was used in the Middle Ages to erect the present tower. The walls of the gateway are built of huge blocks of pudding stone and appear heavy enough to resist even modern artillery fire. At present these walls have an unfinished appearance, for they were originally faced with thin stone blocks and a marble revetment, which is still visible in some places on the mouldings and cornices. From the second story of the court passages led to the sentry walk on top of the city walls, providing an upper line of defense. The gateway as a whole extended about twenty-seven feet beyond the outer line of the ramparts. The gate was provided with three passages of which the central one was twice as high and three times as wide as those at the sides. In Roman times these could all be closed by portcullises. Although the city walls of Augusta Praetoria are somewhat ruinous in places, their line may be traced around the entire circuit if one wishes to look for them at the end of the alleys of modern Aosta, or from the fields and stableyards. The walls were originally built with an outer and an inner facing of stone blocks, those on the exterior being more carefully cut and fitted than the inner ones. These were, however, mere surface coverings for the great strength of the walls lay in a central core of pebbles and gravel from the river bed bound together with such strong mortar that it made an artificial

Roman Bridge, Aosta.

pudding stone of great durability. The outer casing of squared blocks has disappeared almost everywhere while large sections of the inner facing have also been removed, leaving only the centre section of conglomerate. The walls were originally six feet thick at the top and stood twenty-eight feet high without the battlements, which added six feet more to their height. Stone piers placed every forty feet strengthened the wall and supported the timbers of the walk as the holes for the beams indicate.

Since the builder of Augusta Praetoria adopted the plan of the military camp, following a precedent used in many other colonies in Italy and the Provinces, the new city had a mathematically exact outline with watch-towers at the corners of the rectangle and other towers at regular intervals, three on each of the longer sides, two in each of the shorter sides and two at each of the principal gates,—the Porta Praetoria and the Porta Decumana,—making eighteen in all. Many of these towers still exist in a modified form as they were used for strongholds in the Middle Ages. The one called *Pailleron*, near the road to the station, retains more nearly its original form of a square structure with two stories above the level of the city walls and two rows of three arched openings on each floor.

The modern street, Umberto Primo, follows fairly closely the line of the old Roman thoroughfare from gate to gate, but is eight or ten feet higher and is neither so broad nor so well paved as the ancient streets. In place of the carefully built Roman sewers beneath the pavement there is now a little stream of water running in an open channel where lettuce leaves and ancient peaches float or bob about. In the narrow streets the motorbus has to be halted while a drove of pigs are driven past it single file and the people take shelter in the doorways. The old Via Prae-

Remains of Colonnade of Roman Amphitheatre, Aosta.

toria was crossed at right angles by two or perhaps three side streets, an arrangement preserved in modern Aosta. Two large blocks on the right of the Via Praetoria were occupied in Roman times by public edifices, the theatre, amphitheatre and baths.

Enough is left of the theatre to show that it differed in plan from the usual type of Greek and Roman theatres for it was fitted into a small space inside the city gates, where there was not room for the semi-circular form. The theatre therefore was rectangular in outline with the seats arranged in such a way that only the three inner rows formed a semi-circle, while the upper ones were grouped in segments to fit into the square corners. A portion of the back wall of the theatre still stands seventy feet or more in height, pierced by entrance arches and three rows of windows of different shapes. The arches, the great piers that run from top to bottom and the facing of the lower part are made of blocks of conglomerate. This is the earliest type of Roman stone theatre, for although in date it is contemporary with those of Balbus and Marcellus in Rome, in style it is earlier since it lacks the simulated architrave and engaged shafts introduced from Greece into other Roman theatres. Here the arcades are without any decorative framework and furnish a fine example of the Roman style before the introduction of Greek refinements. The architect has however given strength to the façade by dividing it into bays with great buttresses of large, roughly worked blocks of stone. The triple row of windows and the inclosed portico behind the stage are due to the fact that this was a covered theatre, a necessary protection in the severe Alpine climate. At present

small houses are crowded into the arched entrance passages but the three rows of windows stand clear and sharply outlined against the sky.

There are extant only scanty remains of the amphitheatre which may be seen in the garden of the convent of the Sisters of St. Joseph. Two points about it, however, are important, the first, that it was built inside the walls instead of outside, as was the general custom; the second is that it is the oldest Roman stone amphitheatre left to us. The *thermae* of Aosta prove an exception to the rule that most of its monuments go back to Republican or early Augustan times, for they have apparently been rebuilt in the time of Marcus Aurelius. They consist of three semi-circular exedrae and part of the façade, with traces of a rectangular court surrounded by dressing rooms.

In the third block of Augusta Praetoria there was a large quadrangular building consisting of corridors of storerooms around a central court which contained several temples. This has generally been considered the granary for the city's supply of food in case of attack by invaders from the north, since it would be necessary to have enough provisions, arms, and fodder, for a long period, within the city walls. Although admitting the similarity of the arrangement of this structure and later ware-houses at Ostia, Frothingham [1] thinks these underground vaults were better suited for storing water than grain and that this was the main cistern of the city like the ones at Faicchio. The forum is supposed to have extended in front of this building. The other blocks of the Roman town were used for private dwellings of which nothing of especial interest remains. Minor ruins of the late Republican or early Augustan period are scattered all over the whole valley of Aosta and a little way up the Buthier are the remains of the old aqueducts which carried drinking water from this stream to Augusta Praetoria. In several places pieces of the lead pipes can still be seen imbedded in the rocks or the masonry supports. Outside the city walls, not far from the colony arch, is the fine Augustan bridge that crossed the Buthier. As the course of the river has changed, the bridge is now on dry land and is buried to three-fourths of its height in alluvial deposits. Its vault is composed of great square blocks of artificial pudding stone, thus distinguishing it from the other bridges in the valley.

As Turin had corresponded to Susa, so Eporedia, the modern Ivrea, formed the second line of defense for Aosta, some sixty miles away, and there are many interesting remains of the early road connecting the two cities. Eporedia was built on a hill where the river Dora swings out into the great plain of Italy and although it had been founded before the time of Augustus, its nearness to the Salassi had prevented any great development until the conquest by Varro and the subsequent building of Aosta provided greater safety for Eporedia when Aosta became the outpost of Roman rule in the western Alps.

Vassar College.

[1] Frothingham, A. L. Roman Cities in Italy and Dalmatia. New York, 1910, p. 241.

THE PRESERVATION OF PREHISTORIC MONUMENTS IN FRANCE

By GEORGE GRANT MACCURDY

Director, American School in France for Prehistoric Studies

THE motives which prompted early man to choose certain sites for his abode rather than others can not be gauged with certainty. Considerations of safety were presumably among the strongest, as were also proximity to water and the food supply. Comfort and the appeal to the aesthetic sense were possibly of secondary importance.

Among the earliest prolonged dwelling places that have been preserved to us, are the natural caves and rock shelters, the habitation of some of which date as far back as the beginning of the Mousterian epoch or perhaps even the Acheulian epoch. Some of these were inhabited intermittently for tens of thousands of years before the dawn of history; and the more nearly they combined the elements that met the requirements of safety and proximity to food and drink, as well as comfort, the longer and more continuously they were occupied.

It may be a mere chance that some of these dwelling sites most favored by man's more or less continuous presence over vast periods of time are likewise beautiful as to situation and sightly in themselves. Witness for example: Placard in Charente, Le Moustier, La Madeleine, Laugerie-Haute, Laugerie-Basse, the Abri du Château, and Laussel, to mention only a few in the Vézère Valley; and Mas d'Azil, Niaux, Tuc d'Audoubert and Trois-Frères in Ariège. More constant however than beauty of situation is the presence of a water supply; a spring, a perennial brook, or a river.

The most potent factor in determining whether a certain cave or rock shelter should be marked for preservation is the human interest attaching thereto. Happily there exists in France the necessary administrative machinery for the preservation of worth-while monuments both historic and prehistoric. The financial means for obtaining the desired results are however just now inadequate.

The Law provides for the classification, or setting aside, of any real property (*immeuble*) to which attaches public interest from the viewpoint of history, prehistory, or art. Such classification is by the decree of the *Ministre de l'Instruction Publique et des Beaux-Arts*. In case of failure to come to an agreement with the owner, the Council of State may take action by right of eminent domain; the owner is paid for any damages he may have suffered by reason of the classification.

The work of conservation is in the hands of a Commission presided over by the *Ministre de l'Instruction Publique et des Beaux-Arts*. The Commission is composed of three Sections: (1) Historic monuments; (2) Prehistoric monuments; and (3) Antiquities and art objects. With the exception of plenary meetings of the Commission, each Section is master of its own deliberations and reports directly to the Ministry. The Section in charge of Prehistoric monuments is limited to fifteen members, of which ten are members *ex-officiis*. Included among the remaining five are Professors Émile

Fig. 1. Rock shelter of Cro-Magnon at Les Eyzies, (Dordogne). The rock under which the skeletons were found is seen at the beholder's left and just back of the main building.

Cartailhac[1] and L. Capitan. Each Section of the Commission directs its own supervisors stationed in the various Departments of which France is composed. In some Departments, the Commission is represented by two supervisors—one for the historic monuments and one for the prehistoric. In others there is a supervisor for but one class of monuments. Sometimes the two officers are combined as in the case of Lot, where at present Armand Viré has local charge. Still other departments are without local supervision, which is cared for by some member of the Commission. The supervisors are called Délégués du Ministère de l'Instruction Publique et des Beaux-Arts. Each has charge of the *monuments classès* in his own field. The present paper will be confined to the prehistoric monuments. Of these D. Peyrony has charge in the Dordogne, and Dr. Henri-Martin in Charente.

The classified prehistoric monuments in France belong to two categories: those owned outright by the Government and those over which the Government has at least partial control. As soon as a privately-owned prehistoric site is classed by the State, *i. e.*, becomes a *monument classé*, the owner is no longer in complete control; for the State requires that the place be open to the public for at least part of the time. On account of this requirement the wonderful series of caverns in Montesquieu-Avantes (Ariège) known as Tuc d'Audoubert, Enlène and Trois-Frères are not yet classed as national monuments. Count Begouen, the present owner, has taken all necessary steps to protect and preserve to posterity these priceless monuments that have come down to our time through countless ages; but he prefers to limit the visitors to those only who are interested seriously in the records the caverns reveal; and these records will be safe as long as he and his three sons, the Trois-Frères, live.

With the realization of the importance of stratigraphy, or culture sequence, as the proper basis for the science of prehistory, the desirability, even the necessity, of saving *in situ* a section of the culture deposits became self-evident. Such a section could be made not only to serve as an object lesson for future students, but also as a gauge, by which to determine the accuracy of the work of the original explorer of the site in question. In the earlier years the life history of many a station of supreme value was completely extinguished by the pick and shovel of the undiscerning searcher after specimens; or even of those of pioneers gifted beyond the average, but handicapped by ignorance of the true significance of the phenomena they were uncovering.

What a pity it is for example that Cro-Magnon had to be discovered in 1868 instead of in 1921. It is now an empty shell of a rock shelter by the roadside and back of a dwelling (Fig. 1).

[1] Professor Cartailhac died on November 25th, 1921.

The evidence by which one might have determined the exact age of the skeletons found there has vanished beyond recall; and we shall never be quite sure to which phase of the upper paleolithic they belong. No trace of any of the deposits is left, and as a site Cro-Magnon is but a memory.

Placard in Charente is another example of the sacrifice of a station of great importance. The interior of the cave was emptied at an early date rather hurriedly and under absentee supervision. One can still find valuable specimens by digging in the refuse heap, a thing which the members of the American School in France proved to their satisfaction during the past summer. Such matters are managed differently now although of course no effort is made to preserve sites that are relatively insignificant.

There are two classes of paleolithic stations that are well worth while: (1) those with mural art, and (2) those which have superposed culture-bearing deposits representing more than one epoch, or a succession of hearths belonging to various phases of the same epoch. Among the foremost examples of the first class are: Font de-Gaume, Combarelles La Mouthe, La Mairie, and Cap Blanc in Dordogne; Niaux, Marsoulas, Tuc d'Audoubert and Trois-Frères in Ariège; and Gargas in Hautes-Pyrénées. The preservation of these sites is easy with the exception of Cap Blanc; for they are subterranean caverns, accessible through a small entrance which can be closed with but little expense. Tuc d'Audoubert and Trois-Frères are both so difficult of access that even a closed gate would seem to be a superfluity.

Once a gateway is established, a caretaker, usually someone living nearby, has the key and the lighting

Fig. 2. Rock shelter of Cap Blanc (Dordogne). The stone lean-to protects a fine panel of mural figures of the horse in relief.

facilities, and accompanies all visitors. On our excursions of the past summer, in only two instances did we find any apparent laxity in the matter of safeguarding these paleolithic picture galleries, viz.: at Niaux and Marsoulas, both in Ariège. At Niaux, the original door was of wood and has gone completely to decay. We could have seen it without let or hindrance; but we sought supervision for two reasons: In the first place it takes several powerful acetylene lamps to light even a small party, as was the American School in 1921, through a cavern of such magnificent dimensions; in the second place regularity is always a becoming virtue on the part of guests. The forester stationed at Tarascon is the caretaker, to whom we applied.

The other instance was the cave of Marsoulas near Salies-du-Salat. There we applied at the hotel for guide and key, to be told that the key had been carried away during the war by some one in authority and that a guide was unnecessary, as the gate had been forced and had stood ajar since the disappearance of the key. After receiving rather vague directions, we started on our search for the cave, which is in a

Fig. 3. Rock shelter of Le Moustier (Dordogne). The section of Mousterian and superposed deposits prepared for preservation is seen directly beneath the small projecting roof of tiling.

fair way to be forgotten locally. After some hours our search was successful (I had seen it only once before, in 1912, under the competent guidance of Professor Cartailhac). The entrance to the cave was originally closed by a substantial iron fence and gate; the gate was open and we entered unattended. The cave is small and our supply of candles gave us ample light. So far as I could ascertain little damage had been done to the wall paintings during the years the entrance had remained unlocked. It is fortunate that almost everywhere the caves are protected automatically by local taboo born of mystery and legend.

At Cap Blanc the mural art in the form of several figures of the horse in low relief and almost life size are on the wall of a rock shelter. They had been protected through the ages, alike from the elements and vandal hands, by a formation of talus until their discovery about 1910. Immediately thereafter a solidly built stone lean-to was erected, which affords ample protection for the relief figures and for a cast of the human skeleton found there (Fig. 2).

Stations with superposed culture-bearing deposits have not fared so well as have those containing mural art. These deposits are usually at the base of overhanging rocks or just outside the entrance to caves. The problem of future protection thus becomes at once a more difficult one. Mere enclosure with gateway, lock, and key will not suffice; there must also be a roof. Happily such difficulties are not insurmountable and are being met in a number of instances, notably at Le Moustier, Laugerie-Basse and Marseilles, the Abri du Château at Les Eyzies, and La Ferrassie, to mention Dordogne alone.

The site that has been preserved at Le Moustier is the lower rock-shelter, where Hauser found a Neanderthal skeleton in 1908. The deposits here are several meters thick and rich in relics (Fig. 3). The sequence in reverse order beginning at the top is as follows:

6. Middle Aurignacian epoch.
5. Lower Aurignacian epoch.
4. Deposit of water-worn flints representing a period of high waters in the Vézère.
3. Upper Mousterian epoch.
2. Middle Mousterian (where Hauser found the human skeleton).
1. Lower Mousterian epoch.

The State has placed a roof over the carefully prepared section and the entire shelter is surrounded by a fence with gate.

The site at Les Eyzies, known as the Abri du Château has had an eventful history (Fig. 4). Twice it was inhabited for a considerable period of time by Magdalenian man. Then in the eleventh century A. D., after a lapse of many thousands of years, the foundations of a beautiful château were begun. Signs of the two previous occupations were destroyed until the builders came to a great block of fallen stone. This they left untouched and with it the

hidden deposits beneath. Centuries passed and the château itself became a ruin. Other centuries came and with them the need of a Government paleolithic museum at Les Eyzies. For this purpose the old château was chosen and in part restored. The Château Museum, which is now open to the public, contains collections from various Dordogne sites in addition to a synoptic collection. The most important of its exhibits however is the carefully prepared section under the great fallen rock, representing *in situ* two distinct levels of Magdalenian occupation. In a case of the museum proper, is a series of specimens, including an engraving on bone of more than passing significance, also bâtons and harpoons of reindeer horn, found by Peyrony while preparing the section. In the Abri du Château, we have a happy combination of the historic and prehistoric national monuments.

The double station of Laugerie-Basse and Les Marseilles includes not only a section of relic-bearing deposits but also a museum; the latter however is a simple modern building constructed for the purpose by Mons. Le Bel, who owns the two prehistoric sites in question. Like the Abri du Château, the two rock shelters at Laugerie-Basse are beautiful for situation, and there are never-failing springs at all three. The classic station of Laugerie-Basse is widely known because of the portable art objects found there, comprising a reindeer carved on the handle of a poniard of reindeer horn; a female figurine in ivory; engraving on schist, known as the "combat de rennes"; the "femme au renne"; the man chasing a wild ox, and many other examples. A Magdalenian human skeleton was likewise found there many years ago. The antiquities from Laugerie-Basse are for the most part in the national museum at Saint-Germain.

Fig. 4. Abri du Château in the middle background with ruins of the Château at each end. Les Eyzies (Dordogne).

The rock shelter of Marseilles at Laugerie-Basse was only recently explored. The principal collections from it are in the adjoining museum and in the private collection of Mons. Le Bel in Paris. Back of and above Marseilles is a cavern some 25 m. deep, which served as a refuge in Magdalenian times. The section of deposits in the rock shelter preserved for generations present and to come is most instructive. Counting from the top, the various horizons are:

9. Gallo-Roman epoch.
8. Iron age (traces only).
7. Bronze age (traces only).
6. Neolithic period.
5. Azilian epoch.
4. Upper Magdalenian epoch.
3. Upper Magdalenian epoch.
2. Middle Magdalenian epoch.
1. Lower Magdalenian epoch.

The two stations are already classified national monuments and it is understood that the present owner will eventually give them, as well as his collections, to the Government.

La Ferrassie exhibits one of the most important series of superposed de-

posits ever discovered. The greater part of the deposits of this rock shelter have already been removed by Capitan and Peyrony, who have worked there since 1898 intermittently. Among their finds are to be mentioned several Mousterian skeletons; objects of portable art and industrial remains belonging to various epochs, as follows, beginning with the youngest:

10. Upper Aurignacian epoch.
9–6. Four horizons representing four phases of the middle Aurignacian epoch.
5. Lower Aurignacian epoch.
4. Lower Aurignacian epoch.
3. Upper Mousterian epoch.
2. Middle Mousterian epoch.
1. Acheulian epoch.

Of the prehistoric monuments thus far classified, the so-called megalithic monuments outnumber all the others combined; these include dolmens of every description, tumuli, menhirs, cromlechs, and allignments. A classified monument may consist of a single site, structure, or specimen; or it may consist of a group of the same depending upon circumstances. Of the 490 classified prehistoric monuments, 413 are of the megalithic class. The remaining 77 come under the following heads: caves, 18; rock shelters, 7; stations without more definite designation, 10; camps, 5; fortifications, 4; lake dwellings, 1; sepultures, 2; polishing stones, 19; stones with cupoles, 7; sculptured erratic blocks, 1; various, 3.

Fig. 5. Grotte du Poisson at Gorge d'Enfer. Its ceiling is ornamented with a large figure in relief of a fish. Across the river from Les Eyzies (Dordogne).

Fig. 6. Station of Mas d'Azil on the left bank of the Arize river (Ariège). This is the type station for the Azilian epoch, a transition stage between the paleolithic or old and the neolithic or new, stone age.

The 490 classified prehistoric monuments are distributed over 76 of the 86 departments comprising France. The most favored departments are Morbihan and Finistere in Brittany with their wealth of megaliths. The next in point of numbers and perhaps first in importance, is Dordogne. It will be noted that the Government has not yet succeeded in setting aside a single sand, loess and gravel pit. Plans for rendering effective any classification of this sort seem to be beset by unusual difficulties.

Paris, France.

NOTES FROM THE GALLERIES

Washington

The President's New Portrait by E. Hodgson Smart

The British artist, Mr. E. Hodgson Smart, who painted what is considered the most successful portrait of Marshal Foch, has recently completed one equally satisfactory of President Harding, who gave many personal sittings. The President is very seriously interpreted, with great dignity, and the picture, which is a standing three-quarter length, cannot fail to impress all by the splendid character depicted. It is one of the few great portraits of a President. One may find in the Library of Congress Print Division almost numberless portraits of noted Presidents. Washington was successfully painted by many, perhaps best by Gilbert Stuart. President Jackson by Sully, Lincoln and Roosevelt by several artists, and Woodrow Wilson by John Singer Sargent. It is not too much to say that in the years to come Hodgson Smart's "President Harding" will rank with the very best of these, for Mr. Smart is a very wonderful painter.

The portrait of Marshal Foch, which has been on exhibition at the artist's studio, in Mr. Bush-Brown's residence, 1729 G Street, N. W., is another of equal distinction. Foch came to Mr. Smart's studio to pose, the only occasion when he did so for a foreign artist. The Marshal is presented in a characteristic military attitude. One of these portraits is to be in Cleveland, and another in Paris.

Ranking very close to the Foch picture is Mr. Smart's latest work, the portrait of General Pershing, which has also been on exhibition in his studio with the other two, and for which the General has come personally to pose, and has expressed himself as much pleased with the picture.

Peruvian Artist Exhibits in Washington

One of the most charming exhibitions shown here in a long time was that of a young Peruvian artist, Senor Francisco Gonzalez Gamarra, from Cuzco, South America, at the National Museum.

Senor Gamarra, who is a grandson of a former President of Peru, grew up in an old palace of the Incas, which went by the name of "Hatun-rumioc," house of the big stone. He studied art first under his father. Later he received a degree in Philosophy from the national university, his principal contribution being a careful archaeological study and reproduction of prehistoric Peruvian decorative themes of all kinds. This collection, which belongs to the leading museum of Peru, forms a part of his present exhibition, which also includes original water colors, etchings, and other studies of native scenes and characters in Cuzco and Lima, Peru. He has preserved in his pictures many of the old types. One of these is a young Indian girl of rare beauty, with delicate features, black hair, deep expressive eyes, and representative of the vestal virgins formerly chosen for the ceremonial functions. Features of the native dress which she wears are the "lliclla," a sort of mantle, the "thiroux," a gold or silver pin used for fastening the lliclla across the bosom, and the "chumpi" or girdle, all dating back to native dress of ancient times.

The Cathedral of Cuzco, as shown in Senor Gamarra's etching, is one of the most beautiful examples of early architecture left by the Spaniards. Its construction required about 70 years, and its decoration represents the work of both Spaniards and Peruvians. A market scene in an Indian village of Quechua origin shows something of the spirited native character, a holiday group in bright garb.

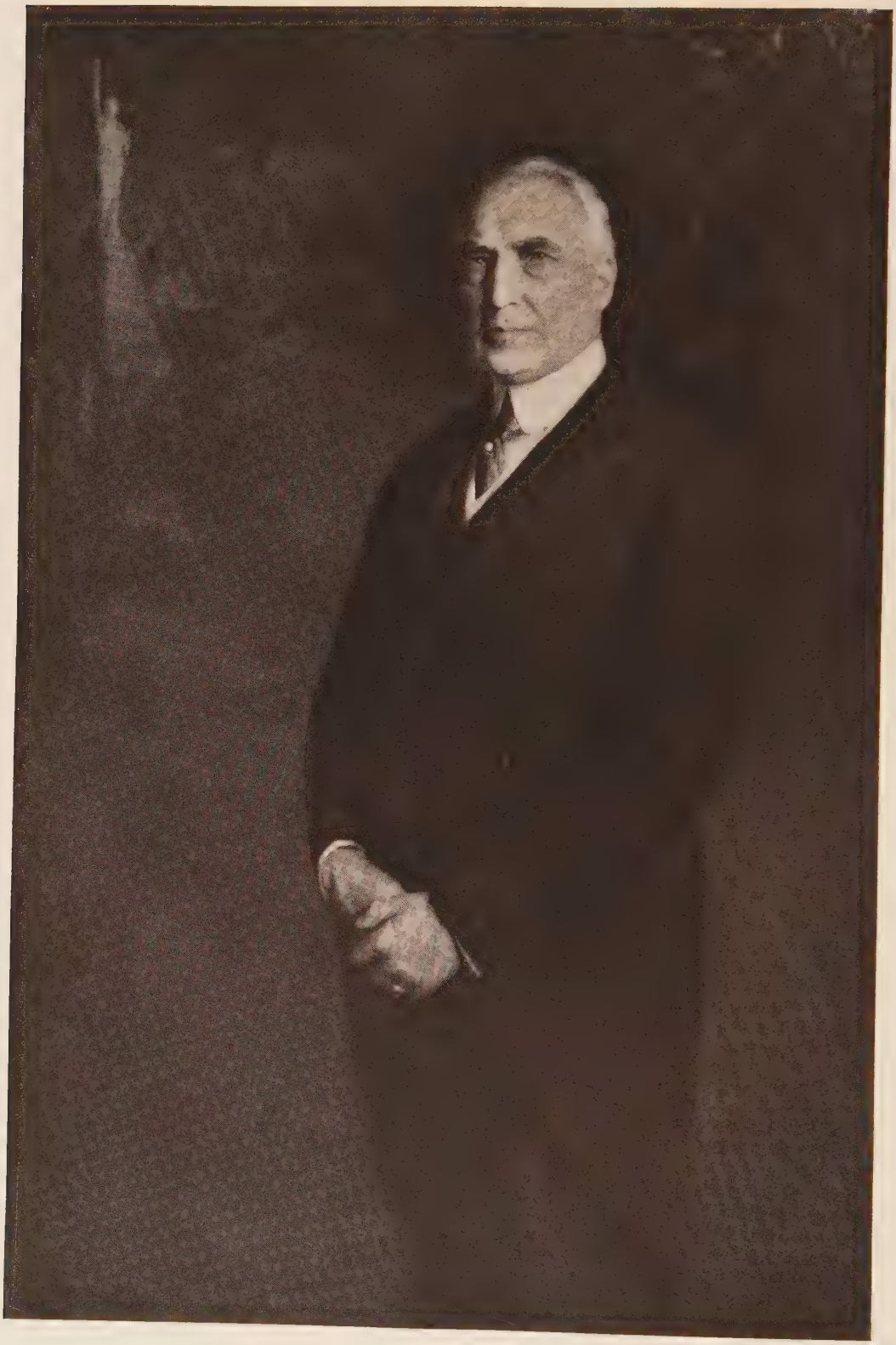
Senor Gamarra, who has been visiting Washington, has lived for about four and a half years in New York, where he has a studio at 1440 Broadway, and resides at 156 West Fiftieth Street.

Gertrude Richardson Brigham.

Summer Exhibitions

At the New York Galleries

The "Summer Exhibitions" are by no means confined to the artists' colonies. Many of the New York Galleries have arranged summer shows which are a particular joy to the art



PRESIDENT HARDING. E. Hodgson Smart, Painter.

lover. This is the time when each gallery brings out the pictures which represents its especial interest. One will show prints, another old masters, still another Barbizon paintings, while in the majority American paintings prevail. As these pictures represent the very cream of their collections, students and lovers of art find in these exhibitions an opportunity unequaled at any other period of the year.

One of the shows in which American masters find splendid representation is that of the Milch Galleries, where Murphy, Blakelock, Weir and Inness uphold with their landscapes the best tradition in American art. At the Kraushaar Galleries, Americans and foreigners participate harmoniously in an extremely interesting show. George Luks' "Czecho-Slovak Chieftain" is brilliant in color and spirit, and Guy Pene de Bois' "Art Lovers" is one of those satires in pigment which relate him to Forain in France. Jerome Meyers' "On the Old Wharf, Evening," is quiet, grave and full of repose, while Gifford Beal's "Lawn Fete" is gay and sparkling. John La Farge is represented by a beautifully painted nude, "After the Bath." Among the French painters are Courbet and Fantin-Latour. Forain's interest in the criminal courts has inspired "An Old Offender." Sir John Lavery is thoroughly English in his graceful "Bacchante" and Zuloaga's dancer is as typically Spanish.

The exhibition of old masters at the Ehrich Galleries takes one back as far as the XVI Century. English paintings are in the majority and include a fine Constable, a deep-toned wood interior by Gainsborough, and Hoppner's portrait of Miss Home. Goya's "Portrait of a Princess" is a striking piece of work in which a stunning costume and fan play an important part. A Dutch interior by Brekelenkam and an "Annunciation" by Jacob Cornelisz Van Amsterdam add further diversity.

The Macbeth Gallery is devoted to American paintings, and here one finds many famous names in modern art. Wyant has found a more subdued phase of summer coloring a subject for his "Gray Day." Homer uses rich and lustrous greens and browns in his "Newport." Ryder's "Homeward Bound," showing a man riding through a grove of trees, is rich in russet and gold. Carlsen's still life subjects, Weir's lovely wood interior, Daingerfield's "Sunset Glow," and a quietly beautiful twilight scene by Foster give the group a singular completeness.

HELEN COMSTOCK.

Greenwich Society of Artists

The Greenwich Society of Artists is one of the first to open its summer exhibition. This year marks the sixth of its annual shows, which is to last until October 15. It is held in the Bruce Museum in the Bruce Memorial Park, which provides a delightful setting among the trees on a hillside.

The paintings are sixty in number, the sculptures, sixteen, while there are numerous drawings and etchings, and some colorful pieces of lustre ware, to complete a very comprehensive exhibition.

Leonard Ochtman's "Big Warrior," showing the mountain in winter, has delicacy of coloring, with its pale grays and much white, even while the general effect is one of strength and vigor. Quite the other extreme as far as color is concerned is William Ritchel's "Where Shadows Lower," showing the blue-green sea swirling among the rocks. Another sea picture of great brilliance is Frederick J. Waugh's "Lapis and Turquoise," which well deserves its name. Quite different in tone and feeling is the soft-hued "Summer Night" by W. Granville Smith, whose boats with quiet sails are spread between the dusky blue sky and the still water. Matilda Browne's "Old House, Lyme," has subdued yet radiant color and Mina Ochtman's "Orchard by Moonlight" is lovely with its quiet blue sky. Helen M. Turner's "Her Room" deals ably with the lighting of an interior. A gem among the smaller pictures is Daniel Garber's "Old Mill" with its clear definitions and fine draughtsmanship. Dorothy Ochtman creates a still life of interesting originality in "To the Ancient Gods," which depicts a bowl of incense burning before an antique Chinese carving. Charles Hawthorne's "Clipper Ship Captain" is direct and simple in treatment, and keen in its presentation of character.

The sculptures, most of them small, include some pieces of rare beauty, such as the "Silver Mask of the Angel of the Annunciation" by Gutzon Borglum. Herbert Adams' "Meditation" has serenity and dignity, and Bessie Potter Vonnoh's "Will-o-the-Wisp" embodies grace and

poise. Chester Beach's "Big Wave" shows a father holding a very small baby over a "big" wave, whose minute proportions no doubt seem large in the baby's eyes. Matilda Browne's "Calves" and "Lambs" are delightfully sympathetic in their presentation of the inhabitants of the barnyard. Augustus Saint Gaudens is represented by his sternly beautiful "Victory," and Nathan D. Potter by his splendid portrait of Luke A. Lockwood.

HELEN COMSTOCK.

Parrish Art Museum, Southampton

In the Memorial Hall of the Parrish Art Museum at Southampton, there is an exhibition by members of the National Association of Women Painters and Sculptors, which is open until July 22. The pictures which comprise this exhibition form a delightful group, interesting for their fine color and decorative qualities. There are a number of lovely figure paintings. Among them is Emily Nichols Hatch's "Rosemary Enters," which has been honored in many exhibitions. Christine Herter's "French Woman" exemplifies the delicate touch and refinement of feeling which are typically hers. Edith Stowe Phelp's group, "Mother and Children," and Hilda Belcher's "Aunt Jennifer's China," which was very popular in this year's Academy, are also included. Lucy Taggert's "Janet" is a distinguished piece of character presentation. Other artists whose contributions are in the field of portraiture are Ellen Emmet Rand, Susan Ricker Knox, Agnes Pelton and Isabel Branson Cartwright.

Alice Beach Winter, whose name is always associated with appealing and sympathetic child studies, is well represented. Very keen and full of individuality are Theresa Bernstein's "Orchestra and Chorus" and Bertha Menzler Peyton's "Annisquam Post Office."

Among the landscapes is a soft-toned and strangely compelling marsh scene by Harriet Lord. Anne Crane's canvas shows a sensitive response to the beauties of winter. Jane Peterson's "Late Afternoon" is broad and vigorous by contrast. Felicie Waldo Howell, a master of firm and significant line, is represented by her decorative "Crowded Harbor."

HELEN COMSTOCK.

CHICAGO

A New Departure in International Shows at the Art Institute

During the months of April and May the Art Institute of Chicago offered the public the unusual feature of an international exhibition devoted wholly to water-color and tempera painting. The idea in arranging such an exhibition was primarily to remove the prejudice which still lingers in the mind of the public with regard to water-color painting and to illustrate the possibilities of this most fascinating and versatile medium. A paragraph from the introduction to the catalogue reads as follows:

"The popular misconceptions which have grown up about water-color painting, and which have at the same time exalted the cult of painting in oil to a sort of fetish, need analysis. Some of our prejudices may be laid at the doors of the amateur in art, dripping his yards of roses through Philistia, some to the copyist, some to the creators of mere prettiness. No stuffy Victorian novel was ever complete without its vapid young miss who sketched in water-colors and the more vapid the miss the more assiduously did she devote her talents to the 'beauteous landscape.' It was considered a genteel and ladylike medium."

In reality the Show this year was the second of the series and much broader in scope than its predecessor in 1921. Eleven nations were represented, including English, French, German, Hungarian, Czecho-Slovak, Scandinavian, Japanese and American groups. The national characteristics were in most cases sufficiently marked to allow generalizations in criticism, though there were always artists in each group individual enough to be cosmopolitan and above racial classification. Among the French such a name was that of Lucien Simon, whose broad handling and powerful conceptions are very different from the theatrical effects of his fellow-countrymen. His scene called "The Old Merchant Women" in quiet coloring hung near to the audacious designs of Georges Lepape and the exotically elegant ladies of Jean Gabriel Domergue, while on an adjoining wall hung the humorous and bizarre illustrations of A. E. Marty and the group by Bernard Boutet de Monvel.

In point of faultless craftmanship the English group were without doubt in the lead. The serious manner in which they accomplish their results, the thoroughgoing effort which they bring to bear on the technique of water-color painting has made them masters of the art. Chief craftsman of them all is W. Russell Flint. There is no one in the world that can achieve so fresh and spontaneous an appearance in a painting. And this he does by the most complex of methods, laying down wash after wash and scrubbing each one before applying the next. When the wash process is finished he puts in his accents in bright color with a wet brush. He will sometimes use opaque white when wiping-out refuses to give the proper high light. Others whose work was noteworthy in a group of uniform excellence were Margaret MacKintosh, Blamire Young, Maxwell Armfield, Cecile Walton Robertson, Arthur Rackham and R. J. Enraght Moony. Sir William Orpen was represented by a cleverly drawn study of two young Cockney girls, standing nude on the beach. The figures themselves are awkward and immature, but the way in which they are produced on paper is delightful. Charles John Collings and W. Lee Hankey were pleasantly familiar names.

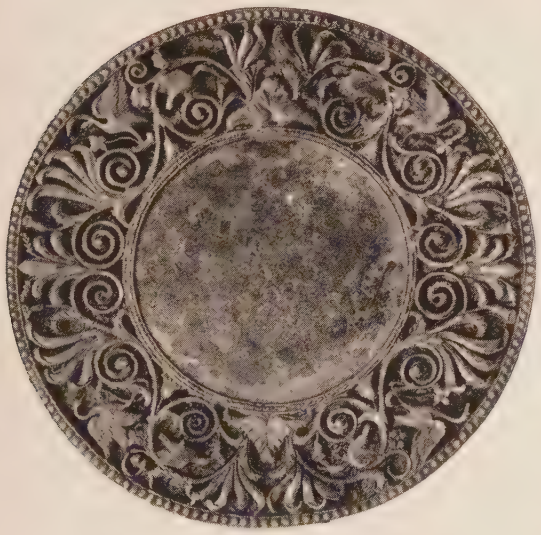
Among the Scandinavian group were Kay Nielsen of Denmark, whose decorative fancies were as pleasing as a Persian manuscript, and whose illustrations of Norse folklore had an unreal elusive charm. Nearby hung two pictures on a similar theme by John Bauer. A more different treatment can scarcely be imagined. Mr. Bauer's fairy-folk are grotesque, but real and deliciously humorous. His death last year took from the world of art an imagination amazingly fertile and eternally young. Birger Sandzen (whom Kansas also claims), exhibited with the Swedish group. Sigurd and Bertha Schou were each represented by several water-colors.

Scarcely an American aquarellist of note was omitted from the list. It is impossible in so short an article to do justice to so brilliant a group. Among the more established names are those of Childe Hassam, J. Alden Weir, John Singer Sargent, Joseph Pennell, Alexander Robinson, Dodge Macknight and Winslow Homer. The latter two were each accorded an entire room in pursuance of a policy recently inaugurated of doing honor each year to two American water-colorists of international fame. Alice Schille, contributed five unique and powerful paintings and Felicia Waldo Howell's six were painted with her usual clear insight and affectionate touch. Florence Este, George Pearse Ennis, J. Scott Williams, Maurice Prendergast and Charles H. Woodberry are only a few of the many whose work added to the interest of the American group.

Representing Japan it was interesting to see the delicate, reticent water-colors of Hiroshige hung beside the modern semi-occidental paintings of Take Sato.

JESSICA NELSON NORTH.

Hellenistic Silverware at the Metropolitan Museum



Greek Mirror, IV–III Century B. C.

Three pieces of Hellenistic silverware, recently acquired by the Metropolitan Museum, are of great interest to the archaeologist, both because of their beauty and their rarity. Few pieces of gold and silverware have survived from Greece itself, for the value of the metals has encouraged plundering. Consequently the discovery of the ancient Greek settlements on the northern shore of the Black Sea has opened up a treasure trove to the archaeologist. The tombs in this region have been untouched, and their contents have largely found a home in the Hermitage in Petrograd, for many of the archaeologists working in that locality were sent out by the former Czars. The three pieces now in the possession of the Metropolitan, found in tombs at Olbia, South Russia, are a mirror, a bowl and a bracelet.

The mirror consists of a round disk of speculum metal surrounded by a border of open work silver-gilt. It is mounted on a

wooden block, in the back of which a small ring is set, as though it were hung up when not in use. It is thought that this wooden back, which is curved to fit the hand, may have been entirely covered with some colored fabric, which would make an appropriate background for the design carved in the border. This border is very elaborate, and consists of palmettes, serolls, akanthos leaves, flowers and birds, all executed with minute care and evident skill in handling metal. The original gilding over the silver has survived almost intact. The workmanship and design indicate that it is of the same period as the Nikopol vase in the Hermitage, which dates from the early Hellenistic period, at the end of the fourth century and through the third century, B. C.

The bowl, which is hemispherical in shape, is evidently a century younger than the mirror. Its design is similar to the compositions on the so-called Megarian bowls, and consists of a beautiful pattern of floral scrolls and flying Erotes, the whole executed in repoussé relief. Its plain rim is edged with an egg-and-dart border. The sides have evidently been gilded, but the bottom, on which is a rosette of akanthos leaves, seems to have been left bare. The construction of the bowl is interesting. It consists of three layers of metals, a bronze-like substance is overlaid with silver, and on top of this is the gold.

The bracelet, with a delightful pendant of a faun playing on a syrinx, belongs to the same period as the mirror. The bracelet itself is composed of heavy double links.

The Home-Coming, a Victory Memorial by R. Tait McKenzie

Dr. R. Tait McKenzie of the University of Pennsylvania, the well-known sculptor who has gained name and fame for the statues of athletes in all the poses of field and gymnasium, has been signally honored in that he was given the commission for the Victory Memorial to the men of Cambridgeshire, England, dedicated on July 3d. At the unveiling of the monument, which depicts a young private, the typical Cambridge boy, the Duke of York officiated, and there was a great concourse of city and Cambridge University officials and men of prominence, a military and academic procession being the features of the occasion. The statue is placed at the junction of three roads in the town of Cambridge, and depicts the buoyant private with discipline relaxed striding along on his triumphal return after the war in his own home town. The statue is one of the most successful depictions of youth that has come from Dr. McKenzie's atelier, and it has been claimed by those who have seen it as one of the most successful presentations of the young Englishman who left the farm and field and the classic walks of Oxford and of Cambridge to play their parts in the World War. By selecting the home-coming episode as the central thought of the Victory Memorial, Dr. McKenzie has worked out a monument which is a particularly happy one.

HARVEY M. WATTS.

ARCHAEOLOGICAL NOTES AND COMMENTS

American School at Athens Notes

Close upon the heels of the gift of the great Gennadius Library to the Athenian School in April, and of the grant of $200,000 by the Carnegie Corporation in May for the erection of the Gennadeion in Athens, comes the announcement in June of a subscription of $100,000 toward the School endowment fund by Mr. John D. Rockefeller, Jr. Mr. Rockefeller has been conducting an independent investigation into the School's work and management for some time past, and became convinced that the School was not only carrying on a most important work in the training of scholars and in exploration and discovery, but required and deserved to have larger resources than it has enjoyed in the past. His generous gift has therefore unusual weight as an endorsement and as an example to others. The sole condition attached to this gift is that the endowment fund of $250,000 which the School is now raising, toward which the Carnegie Corporation subscribes $100,000, shall be completed on or before June 19, 1924. Thus for every dollar contributed to the School's endowment the Carnegie Corporation and Mr. Rockefeller contribute an additional dollar and a third. On July 1 the management of the School announced that one-half of its share of this new endowment fund of $350,000 had been subscribed.

Considerable progress has been made in the preparation of the plans for the Gennadius Library building in Athens. The Building Committee consists of Dr. Edward Robinson of the Metropolitan Museum of New York, Professor E. D. Perry of Columbia University, Mr. W. B. Dinsmoor of the Avery Library of Architecture, and Professor Edward Capps of Princeton University as Chairman. Messrs. Van Pelt and Thompson of New York have been appointed architects of the building. Mr. W. Stuart Thompson, of this firm, was a pupil of the Athenian School and served as architect of the Library Addition to the present building in Athens; he will go to Athens and personally supervise the construction of the Gennadeion.

George Washington University and Princeton University both took advantage of the presence of Dr. Joannes Gennadius in America to bestow upon him at their Commencement exercises their highest academic distinctions in recognition, not only of the high position which he has personally attained as a diplomat and man of letters, but also of his unique gift to the American School at Athens. The former institution conferred upon him its degree of Doctor of Humane Letters, the latter that of Doctor of Laws. The graceful words of Dean West of Princeton in introducing Dr. Gennadius as candidate for the degree are worth recording here:

JOANNES GENNADIUS, scholar, benefactor, diplomat, patriot, now honored by the supreme permanent diplomatic rank his country can bestow. Beginning his career in Washington a half century ago, he long served as Greek Minister to Great Britain, fulfilled a special mission here and was Greek delegate in the trying negotiations after the Balkan wars. His many writings, published here and abroad, reveal a scholarship at once acute, versatile and abundant. Great universities have paid him high tribute and many lands have given him their choicest honors. Our American School at Athens is his endless debtor.

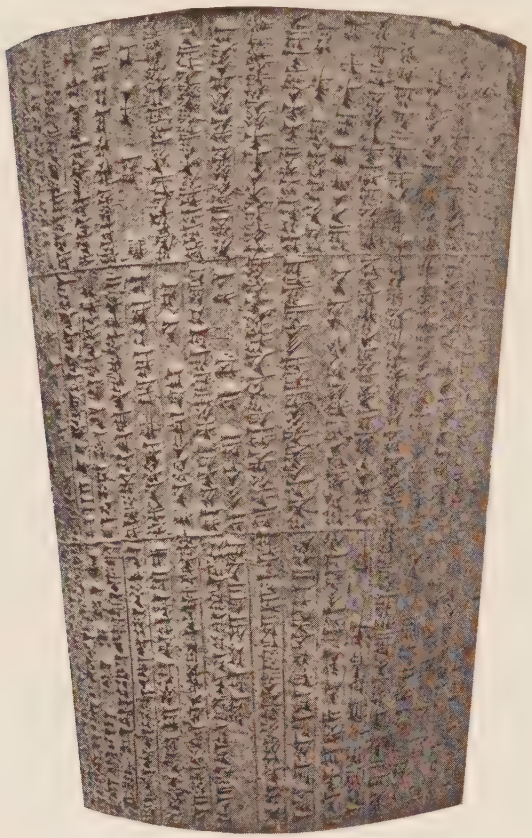
He is a noble heir to the spirit of the old Greeks in whose life a century counts but as a day. In his presence we seem to hear again their voice which led mankind into the realms of knowledge, beauty and freedom and uttered the heavenly message of our Christian faith and to look expectant for a new day of light when

> "Another Athens shall arise
> And to remoter time
> Bequeath, like sunset to the skies,
> The splendor of its prime."

The October issue of ART AND ARCHAEOLOGY will be the long promised American School at Athens number, with profusely illustrated articles on the activities and excavations of the School during the forty years of its history, and with reproductions of the recently accepted plans for the Gennadeion.

ART AND ARCHAEOLOGY

A Recently Discovered Babylonian Cylinder upon which is Inscribed a Proclamation of Nebuchadnezzar, King of Babylon (Reigned 605–562 B. C.)



The Carnegie Museum has recently acquired a very important Babylonian document. It is a cylinder nine inches high and six inches in diameter at the base. It bears an inscription of one hundred and forty-five lines, telling how Nebuchadnezzar built the walls of Babylon, one of the wonders of the ancient world, restored the temple tower of Birs, which scholars have associated with the biblical story of the Tower of Babel, and other structures in and about Babylon.

The cylinder was found in 1915 by Arabs, who were engaged in tearing down a ruined wall at Wana-Sadun, the remains of the ancient city of Marad, a suburb of Babylon. The Arabs were seeking brick for building purposes. The cylinder was buried in an opening in the wall, according to the ancient custom, very much as in modern times in western countries it is the habit to place in a corner-stone a box containing historical documents. It may well be queried whether the modern usage is an inheritance from the Babylonian past. Also a couple of other cylinders, less perfect and less important, were found by the Arabs at the same time and place.

The Arabs, knowing of the value of such objects, exercised great care in the preservation of this cylinder, and took it to Bagdad, where it was purchased by Mr. I. S. David, a collector, who wished to retain it for himself. Financial circumstances have recently compelled him to part with it, and he sent it directly to Mr. Edgar J. Banks, from whom it was purchased by the Carnegie Museum. There is absolutely no question to its being an original and genuine. It is probably one of the most important inscriptions which was been found in recent years in the ruins of Babylon.

W. J. Holland.

Carnegie Museum,
Pittsburgh, Pa.

Excavations of the American School in Jerusalem at Tell El-Ful

Dr. W. F. Albright, Director of the American School in Jerusalem, has recently made some interesting preliminary reports of the excavations the School is making at Tell El-Ful, a prominent site three miles north of Jerusalem, on the Nablus road. Dr Albright has dug trenches in various parts of the hill-top, and is now devoting his attention exclusively to the *rujm*, or monticule on top, which is proving intensely interesting. He has found at least three superimposed fortresses, or migdols, dating respectively from the latest Canaanite or the earliest Israelite, about 1300–1100 B. C., the early Kingdom, about 1000–800 B. C., and the Arab period. He is convinced that he really has the site of the Biblical Gebeah.

ART AND ARCHAEOLOGY

Ancient America Art Revival in Paintings by San Diego Artist

Of the thousands of visitors that frequent the California building in Balboa Park, where the Maya and Aztec cultures are exhibited, few seem to take notice of the glyphic signature on the large Maya Indian murals. This signature, like most of the innovations of the artist who painted these murals, belongs to Henry Lovins, local artist, whose exhibition of his work has just finished an extensive tour throughout the southwest and has attracted a great deal of attention.

Lovins' technique is entirely original with him, and is not a stock formula. His subjects are also original, and are not found in copy books. He has created an entirely new art through his inventive genius, and the work of his former periods along the line of portrait painting have been greatly eclipsed by his mural decorations. The biggest feature of his efforts is in the revival of the art of Ancient America.

The Santa Fe Museum, in New Mexico, exhibited his collection under the auspices of the School of American Research. Later on the Institute of American Architects, Los Angeles Chapter, showed his works in the Public Library. Then the Federated Women's Clubs of California sent Lovins an invitation to make an exhibition at the Museum of the Southwest, Los Angeles, in collaboration with the Indian Welfare League. In all, about 100,000 persons visited his exhibitions.

A Swiss Mystery

Many people are aware of the fact that Berne, the capital of Switzerland, contains other points of interest besides the Bears of Berne and the old Clock Tower. Others, and these alas, represent the majority, believe that Berne's resources are exhausted when you have fed the bears and watched the clock strike twelve.

But one of the former class while prowling round the place has run up against a third attraction in the Historical Museum and named it The Mystery of Berne. Being of an inquiring nature the prowler returns again and again to the Museum and stands by the glass case which contains the object of her interest.

The indications on the card purporting to describe the object are brief enough: "Bronze vase (hydria or water jar) found in the lower grave (Iron Age) of double tumulus at Graechwyl, near Berne. Neo-Greek, VII Century B. C. Part of iron tire. Iron Horseshoe. Bronze ornaments. Pieces of pottery. All from the same grave."

The vase looks more Etruscan than early Greek, and indeed was so classed by its discoverers. But how did it get to Berne in those prehistoric times? It is made of thin bronze and stands about two feet and a half high. From a flat narrow base it broadens to a graceful generous size, then suddenly slopes into a slender neck. Each handle is formed of two leopards, one right side up, the other upside down, divided from each other by a graceful palmetto design. On the neck of the vase is affixed a strange piece of bronze work which excites the imagination to busy conjecture. The figure of a winged woman is standing serenely in the midst of a quartette of lions. One stands on either side of her, each touching her dress with a raised

forepaw and panting with pleased excitement, while two others stand on the snakes that emanate from her head to the right and left. Upon the diadem which crowns her head, stands an eagle. The woman holds a rabbit in each hand; her right grasps the forelegs of one and her left the hindlegs of the other. Who is the woman? The goddess of fruitfulness, as some writers say? Or is she Artemis, the huntress, as another writer asserts?

You perceive that the prowler has been driven by her curiosity to extend her research to the National Library in Berne, but as yet the question, "How did this Etruscan or old Greek vase get itself buried in a prehistoric grave so far away both from Greece and from Etruria?" is far from being settled.

The double grave itself, however, is described as follows by Hierli:

"Not far below the surface of the grave mound near Graechwyl near Berne, bones were discovered, among which was found the skeleton of a warrior. Near his right shoulder lay the brooch that had fastened his mantle; on his right arm lay his two-edged sword, a weapon dating from the Alemanic-Burgundian period, while close to his hand lay a dagger still in its sheath. On his right foot was a spur. This was clearly the grave of an early Alemanic warrior, placed, by his own wish, on the mound of another, dating from pre-Roman times.

"At a depth of about two yards further down the older grave was reached and opened. A marvellous bronze vase was discovered standing under heavy stones and richly decorated. It was found to contain the charred and burned remains of a human body. Near the vase were various brooches, bronze objects, a horseshoe, a clay vessel and part of a wheel, probably the remains of the Chief's own war chariot."

No real explanation, it will be seen—nothing but a catalogue of objects, all of which is most unsatisfactory to the curiosity of a prowler, who continues to delve. And she has lately stumbled on the following paragraph which has suggested to her a romantic solution:

"Livy tells us that the year 400 B. C. saw the Celts in Switzerland suffering from overpopulation. The king, Ambiatus, therefore sent out his two nephews, Segovesus and Bellovesus, with vast armies to find new countries where they could plant colonies. Segovesus led his army over the Rhine into Southern Germany. But Bellovesus took his men over the Alps into upper Italy, where he drove out the Etruscans and settled down with his army in the vicinity of Milan."

With these facts and shadows of facts whirling through her mind the prowler stands before the glass case of the Mystery of Berne and asks herself why the following should not be a perfectly plausible answer to her questions:

Bellovesus and his men doubtless made rich booty when they drove out the Etruscans. Why should not this vase have been among the booty, a piece of antiquity, perhaps even an heirloom belonging to one of the Etruscan families that had been driven out? It doubtless accompanied a great chief back to Switzerland when he went to make his report on the new lands won for the Celtic colony, and was used according to his own instructions to enclose his ashes after his death. Did they burn his war horse too—and his war chariot, nothing remaining of them but one horseshoe and one iron tire? At all events the vase and the other relics were carefully covered with slabs of stone and a tumulus raised over them.

Centuries passed and the Celts were driven out of Switzerland by the Alemans. More centuries passed and then a certain Alemanic chief, sensing that below the old tumulus lay one equal to himself in rank and prowess, had himself buried on top of the mound which was thus further covered with stones and earth.

Still more centuries have passed and now here stands the vase in the Historical Museum of Berne, ever a mystery in spite of fancies woven round it by a prowler who demands solutions. It is doomed to remain a mystery until the silent earth gives up a sufficient number of further relics of the past still hidden in the soil of Switzerland for scientists to fix with certainty the reason why an old Greek vase should be found in a pre-Roman grave tumulus near the city of Berne.

ETHEL HUGLI CAMP.

Berne, Switzerland.

The Etruscan Tomb of the Volumni near Perugia

This subterranean sepulchre was discovered about seven or eight yards below the surface, its one entrance sealed closely with a huge flat stone. The staircase which had led down to the door had entirely disappeared, when the contadini struck the spot during their agricultural

labor, and removed the stone of travertine rock which constituted the door of entrance. The tomb was found in as perfect condition as when hermetically sealed some 2,200 centuries ago. Many objects of art in metals, marble, and terra-cotta were discovered, several of which are dispersed and lost. The more important and larger masses, however, were left as they were found. The tomb was hollowed in the tufa rock by the chisel; the entrance had an architrave and jambs of stone. On the right doorpost are Etruscan inscriptions in three distinct rows, cut probably to warn those entering that this place was sacred, and to indicate the name of the family owning the Sepulchre, "Volumnia."

Just inside the tomb, on the wall over the door, is a rayed disc sculptured in the rock, the sun flanked by two dolphins, used to signify the sea; symbolic of the ocean which spirits had to cross ere approaching Elysium, while the sun symbolized the sojourn of the happy souls in the place where, as Pindar says, "night prolongs not the obscurity with its veil." This sepulchre was planned with perfect correspondence of parts in a Latin cross, with six little rooms, three on either side. The larger arm stretched some fourteen yards long and six wide, the smaller nine by two. Two doorways at the sides led to cells equal in size like arms opened, the extremities of the smaller leading into similar cells. The tomb was beautifully cut, though the implement used seems to have been nothing larger than a chisel. The roof was formed to simulate beams with ornaments such as were used in dwellings.

The head of a dragon in terra-cotta which thrusts out a tongue of colored metal projects from every cell about mid-way on the wall. Other symbolic animals were also found in the tomb. Benches were cut in the rock walls to receive the bodies preparatory to incineration, others were prepared for the urns. In the tribune at the head of the nave are distributed seven sepulchral urns in beautiful order on stone benches cut in the tufa. The entrance to the tribune is flanked by two projections of tufa, which reunite in the form of an arch, and are surmounted by a sculptured tympanum. One half is occupied by a beautiful shield or round buckler on which a youthful head larger than life in high relief, an image of Apollo, is represented, protector of the tomb.

At the side of the shield are two swords on which were placed offerings to Apollo. Other adornments of the tympanum are distributed in symmetrical forms. To the right of the shield is the bust of a man on whose shoulders is tied a basket to a shepherd's staff; to the left is a similar figure.

From the centre of the archivolt a metal rod descends which it seems ought to support a lamp; to this is suspended a graceful winged figure in terra-cotta in the act of sustaining the hem of a cloth floating behind her. A similar figure hangs from the centre of the vestibule. The vault (arch of the ceiling of the tribune) is adorned with a most beautiful head, sculptured in the tufa, a work of great majesty. This vault, like all other sculptures of the tomb, announces the epoch as the fourth or third century B. C., in which time Etruscan art rivalled that of the Greek.

The tribune was, one might say, the sanctuary, the most important part of the tomb. The seven urns placed there are embellished with superb sculptured reliefs and with Etruscan inscriptions.

The urn which holds the ashes of the Volumnia, head of the family, is the finest of all. In the front part of this urn an arch was painted from which four figures of women projected. These figures had been painted, but the color is almost gone. By the side of the door or arch are carved two winged women in high relief, who at first sight suggest the furies of the Etruscan Tartarus.

Volumnia, the head of the family, reposes on his pedestal in sculptured peace. His left hand holds the patera, his right a necklace. The coverlet hangs in beautiful folds about the greater part of his person.

Of the other urns the third one is perhaps of most elegant workmanship. It is ornamented with reliefs on all sides.

Such in brief are some of the interests of this wonderful tomb of the Volumni, which the travelling public can see at cost of some little trouble on their way from Perugia to Assisi.

ADA M. TROTTER.

The Potted Gold of Croesus

A Turkish laborer, working cautiously with a pick and shovel on April 13 of this year on a hill in Asia Minor where some fragments of pottery and worked stone had been noticed, dug

out bones, fragments of masonry, broken pieces of baked clay and then a large earthen pot. The pot was intact. It was not sealed, but its mouth was stopped with dirt.

The laborer called to some of the group of American scientists organized by Dr. Howard Crosby Butler and financed by the American Society for the Excavation of Sardis. They began cautiously to remove the dirt from the jar. For fear of injuring delicate gold jewelry or other fine artistic work, archaeologists work at close quarters with a tooth brush, the finger or the point of a knife blade. The earth thus removed is sifted by hand.

There was a gleam of yellow metal. With emotions like those of "Stout Cortez" or the "watcher of the skies" in the sonnet of Keats, the archaeologists saw that they had discovered a potful of "staters," the first gold coins ever minted. Thirty in all were soon removed from the pot. With the dirt rubbed off, some were as bright as if they had been minted that day, the purity of the gold being a perfect defense against the chemical action which would have eaten into the surface of any other metal exposed so long to water and the minerals of the soil.

They were the "staters" of the Lydian King, Croesus, whose name is a synonym for riches and who, if history is to be trusted, introduced the use of solid gold for coins. Of these coins only one good specimen had been previously known to be in existence, with four badly worn ones. Lumps of gold, weighing about a quarter of an ounce, roughly oval in shape, they were stamped on one side with the head of a lion and of a bull, a combination familiar in Lydian decorations. The lion's head was the fable of the killing of the lion by Heracles, or Hercules, the mythical founder of the royal house of Lydia. What the bull's head stands for is unknown.

To a private collector a single "stater" might be worth hundreds of thousands of dollars. A Turkish workman, by slipping one in his pocket, might make himself one of the wealthiest men in Asia Minor. The whole thirty, however, were placed in the hands of the Greek authorities at Smyrna for future disposition.

The pot was found on a small hill which had probably been a cemetery in the time of Croesus, and the ruling conjecture at the present time is that the gold pieces were hidden there during the fourteen-day siege of the city by Cyrus, the Persian King, in 546 B. C.

The lucky discovery was made, according to Dr. T. Leslie Shear of New York, one of the party, because the scientists were "prospecting," the systematic excavation of the site being prevented by the damaged condition of their machinery as the result of successive invasions of the region by Turkish and Greek armies.

ALVA JOHNSTON, in *N. Y. Times.*

The XX International Congress of Americanists at Rio de Janeiro

The American delegates to the XX International Congress of Americanists to be held at Rio de Janeiro August 20-30 in connection with the Centennial Celebration of Brazil, are as follows: Ales Hrdlička and Walter Hough, Smithsonian Institution; Marshall H. Saville, American Museum of Natural History; Sylvanus G. Morley, Carnegie Institution of Washington; Gilbert Grosvenor, National Geographic Society; William P. Wilson, Commercial Museum, Philadelphia; P. H. Goldsmith, American Association for International Conciliation; Herbert J. Spinden, Harvard University; D. C. Collier, School of American Research; and Mitchell Carroll, representing the Archaeological Institute of America, Archaeological Society of Washington, and the School of American Research. The proceedings of the Congress will be reported in a future number of ART AND ARCHAEOLOGY.

Announcement

The September issue of ART AND ARCHAEOLOGY will be an *American Archaeology Number* and will contain illustrated articles by E. L. Hewett on "The Chaco Canyon in 1921"; Lula Wade Wetherill and Byron Cummings on "A Navaho Folk Tale of Pueblo Bonito"; Marsden Hartley on "The Fiesta of San Geronimo at Taos"; and William Edward Myer on "Recent Archaeological Discoveries in Tennessee."

BOOK CRITIQUES

A Text-Book of European Archaeology. By R. A. S. Macalister, Litt. D., F. S. A. Professor of Celtic Archaeology, University College, Dublin. Volume I, The Palaeolithic Period. Cambridge University Press, 1921. Pp. xiv+ 610; with 184 figures in the text.

Not since 1900 with the publishing of *Le Préhistorique* by the two de Mortillets, and 1908 with the apperance of the *Manuel d' Archeologie Préhistorique* by the lamented Dechelette, has there been printed so important a volume on palaeolithic man as the recent work of Professor Macalister.

Attractive in appearance and logical in arrangement it appeals both to the technical student and to the "average reader." Beginning with an excursus on the fundamental facts of geology, palaeontology and anthropology, which should be known by the student of the Old Stone Age, the author takes up successively the theories of very early man, tertiary man, "eolithic man," if you will; then the three palaeolithic periods, and last the mesolithic "lacuna" leading to the neolithic. (This will be treated of in the next volume of the series.)

His three divisions of palaeolithic man are (1) the Chelleo-Acheulian (River-Drift), (2) the Mousterian (first cave-man), (3) the Aurignacian, Solutrian and Magdalenian (second, third and fourth cave-man).

His mesolithic is specially characterized by the Campignyan, and Azilian, and the Scandinavian peat-bogs and shell-heaps (Magelmose and kjoekkingmoeddinger).

The last chapter is an illuminating setting forth of the general problems of the periods and of their attempted solutions. Professor Macalister places Mousterian man, with his skeletons predominantly Neanderthaloid, at about the time of the last great glaciation (the Wurm); the disappearance of this physical type and the appearance of the Aurignacian Cro-Magnon race he accepts, but finds it impossible to fill in all the details of the process. A quasi-mixture of the two types may have succeeded in Solutrian times, to be followed in Magdalenian by a recrudescence of the Cro-Magnon.

The exposition of palaeolithic art and the chapters on the psychology of the artists are well done and not too abstruse; the author belongs rather strongly to the school which attributes the animal sculptures and paintings of the caves to sympathetic magic. His treatment of the eolithic question is so voluminous and his references so abundant, that it is a pity they should be weakened by a semi-humorous skepticism.

No one can cavil at his refusal to accept theories themselves some times fantastic, sometimes quite the contrary, but it would have enlightened his text had he seen fit to discuss further, for instance, the question whether the flaked stones claimed as pre-palaeolithic are or are not exactly what we should expect in the predecessors of the first tools fashioned with a preconceived idea of form. The Belgian quaternary eoliths, the Foxhall flints, the rostrocarinates demand serious judgment if for no other reason, simply because serious scientific scholars believe in them.

The proof-reader is responsible for a number of slips, and the book would have been wonderfully aided by a table of contents *raisonnée* at the beginning and a bigger bibliography in one place by subjects. The one outstanding quality of the book is the very method so unsuccessful in the treatment of the eolithic question; strange to say it works enormously well in dealing with disputed later discoveries; a dogmatism which does not hesitate, after presenting the facts, to cut out many claims and to reduce the number of accredited discoveries and phenomena helps the casual searcher who may use the book as a work of reference. We are thus grateful for this "magnum opus," inclusive, authoritative and interesting. CHARLES PEABODY.

The Enjoyment of Architecture. By Talbot F. Hamlin. New Edition. Profusely illustrated. Charles Scribner's Sons, 1921. $3.00.

"There is one enormous source of artistic pleasure of which too few are as yet aware; there is one art whose works confront us wherever man lives, which all too many of us daily pass blindly by. That source is to be found in the buildings all around us; that art is the art of architecture." These words from the first chapter on "The Enjoyment of Architecture" strike the keynote of this interesting volume. Mr. Hamlin, who is a practicing architect himself, inducts the reader into the mysteries of architecture as a living art, and setting aside purely technical details, shows him what are the sources of enjoyment in the intelligent inspection of the buildings he passes every day, and how much satisfaction may be derived from an acquaintance with the elements and underlying principles of architecture. M. C.

Figurative Terra-cotta Revetments in Etruria and Latium in the VI and V Centuries B. C. By E. Douglas Van Buren. London: John Murray. New York: E. P. Dutton & Company, 1921. Pp. x×74. $7.00.

An Introduction to the Study of Terra Sigillata Treated from a Chronological Standpoint. By Felix Oswald and T. Davies Pryce. London: Longmans, Green and Co., 1920. Pp. xii× 271 and 83 plates. $16.50.

Mrs. Van Buren's book is the outcome of ten years' study and travel and fills a long-felt want, since it makes accessible the results of recent excavations which, if published at all, have appeared in periodicals, some of them inaccessible to the ordinary student. There was great need of a synthetic treatment and classification of this scattered material, and Mrs. Van Buren modestly ventures to hope that this simple catalogue may be found useful. As a matter of fact the book will prove indispensable to every student of Etruscan archaeology, and especially of Etruscan terra-cottas. Mrs. Van Buren by her many articles, particularly in the *Journal of Roman Studies*, has made herself a great authority in this field, and her collation of numerous duplicate examples of types, shows her extensive knowledge of the collections of Etruscan architectural terra-cottas. This handy collection will rank favorably with Koch's *Dachterrakotten aus Campanien.*

The illustrations are reproduced on thirty-two plates from good photographs, and the volume is attractively bound in terra-cotta cloth with title in gold on the back. The text is printed in large clear type on excellent paper with broad margins.

The subject matter is grouped in three sections, Antefixae, Akroteria, and Friezes, with a careful index. The first is divided into divisions and these subdivided into types, but the last two are divided only into types. Each is preceded by a short introduction. This gives the impression of three separate articles and the book would have had more unity if there had been a general introduction with all this material together. There are some features that would make the book still more useful and we hope they will be found in a more final and completer catalogue which will include the terra-cotta revetments of later times. There should be references in the text to the plates. Dimensions of examples and the scale of illustrations should always be given. The number of examples of each type should be stated. The plates should tell where the examples now are.

It would have been less confusing to scholars if Mrs. Van Buren had included an introduction on chronology and had told us why she dates certain terra-cottas as she does.

Mrs. Van Buren's book is an important piece of research and the minor defects do not impair the scholarship of a very attractive book. It should interest every student of art with the profuse illustrations of these precious Etruscan terra-cottas, which show a quaint charm and a skilful use of both modelling and color.

Another very important recent book on terra-cottas is that of Oswald and Pryce on *An Introduction to the Study of Terra Sigillata*, the most important book on this subject.

At an early date of the excavations at the Roman station of Margidunum in Nottinghamshire the excavators were struck by the difficulties inherent in the study of Terra Sigillata (the so-called Samian ware), and especially by the necessity of laboriously collating innumerable references to scattered memoirs in many languages besides our own. It seemed, therefore, that a real need existed for a work in the English language, which would present in a systematic and comprehensive manner all the chief points in connection with Terra Sigillata.

The importance of a careful study of this red glazed ware, which is so abundantly found on Roman sites, lies in the historical evidence it affords, for, apart from datable inscriptions, there is perhaps no relic of the Imperial period of greater value for dating purposes.

The method, by means of which a chronological estimate of Sigillata evidence is arrived at, is based on its essentials on the determination of "site-values." Thus the exclusive or predominant occurrence of certain types on properly excavated sites such as Haltern, Hofheim, Newstead and Niederbieber, which can be dated by external historical evidence, affords a valuable aid to the determination of the period and distribution of these particular forms of Sigillata. Light is also thrown in this way on the limits of activity of the potters whose names are found stamped on these wares as well as on the period when certain modes of decoration were in vogue.

Owing to the fact that early Gaulish Sigillata is essentially a development of Italian or Arretine fabric a short descriptive section relating to this ware has been included. In a further chapter the evolution of Terra Sigillata

is treated on broad lines and the more ultimate sources of inspiration are discussed, stress being laid more especially upon the continuity of certain ornamental *motifs* in ancient ceramic art.

Throughout the work a definite statement in the text has been fortified by reference to some potter of well-attested date or to a datable site or to both. In like manner the illustrations for the most part are taken either from bowls of well-known potters or from vessels and sherds found on sites, the periods of which can be assigned with a fair degree of accuracy to a definite date.

In this way it has been the endeavor to produce a reasonably concise and reliable guide to the study of provincial Sigillata. Particular care has been taken to draw all the figures to scale so as to permit of exact comparison.

DAVID M. ROBINSON.

The Johns Hopkins University.

The Art of Drawing in Lead Pencil. By Jasper Salwey. New York: Charles Scribner's Sons, 1921. $3.75.

Mr. Salwey in his delightful book makes one feel that the pencil is the most satisfactory instrument for reproduction. Figures, and landscape in particular, are given a more perfect and delicate character. Landscape seems to take on a softer rendering, trees grow and leaf and clouds float, in this more subtle medium, and a charm of depth and clearness is possible.

No more beautiful portraits have ever been made than those drawn in pencil by the great artist, Ingres. Mr. Salwey's treatise on the methods of obtaining a particular quality in lead pencil work is very complete. He gives the laws and rules of the technique and the principles upon which the methods of building up a highly finished drawing must be based.

He believes drawing in lead pencil is a means of expression for both the simplest and the highest aims of Art. In proof of it, the book is rich in illustrations, many charming drawings by the author. Other artists represented are J. D. Ingres, Sir Charles Holroyd, A. E. Newcombe, Alfred Parsons, J. Constable, F. E. Georges, Frank Dicksee, J. Walter West—all showing a great variety of method and subject.

The pencil is a "vital tool," sympathetic to the artist's every fancy or requirement; "a medium capable of rendering not only the most determined contrasts in light and shade, but . . . fifty intermediate tones in varying degree."

Mr. Salwey is an Associate of the Royal Institute of British Architects.

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Principles of Interior Decoration. By Bernard Jakway. New York: The Macmillan Co., 1922.

The first effect upon a hurried reading of Mr. Jakway's book is one of discouragement.

If one is a "newly-wed," with a new house or new apartment to be furnished and decorated, the problem is not so difficult. But even newly-weds are apt to be the victims of kind and devoted friends who will send for wedding gifts, a Mission chair, a Louis XIV desk and a Japanese screen. How can harmony in the home arrangement be secured?

Then one may possess furniture one's mother used to have, old pieces that do not conform to any period or special place, but that are endeared to one's heart by sentiment—then what is one to do? Sentiment must go. There is no place for it in the new order of things.

Rugs, furniture, hangings, wall-decorations—all must conform to certain rules of unity, balance and harmony, to be carefully studied and thoughtfully carried out if our houses are to be livable. "In the degree that this environment is beautiful and comfortable it affects us favorably, making for repose, for quick recuperation from fatigue of mind and body, for cheerfulness, for wider and higher interests and for a fuller and comelier mode of living generally."

Various periods of furniture must not be used together, the placing of the pieces, the proper hanging of pictures and mirrors—is all necessary for the perfection of a room and the peace of mind of the occupants. The average house or apartment we enter, is a pain rather than a pleasure, no thought at all given to balance or the elements of beauty. The general fault is over-crowding. Order is the basic esthetic quality and orderly arrangements are most pleasing and convincing.

Line and color are important elements, even the moldings on the wall, cornices of the windows, the "fixed" decorations must be considered in effecting a proper balance.

All of these things the author makes very clear in his exhaustive treatise on the subject. It is a very worthwhile study and one sadly neglected.

"Beauty and comfort in the homes we live in—this is the ideal of interior decoration, the goal of all planning and contrivance and house-furnishing effort, the highest aim of all study of the art."

Mr. Jakway is University Extension Lecturer on Interior Decoration in the University of California and writes authoratively and entertainingly on the subject.

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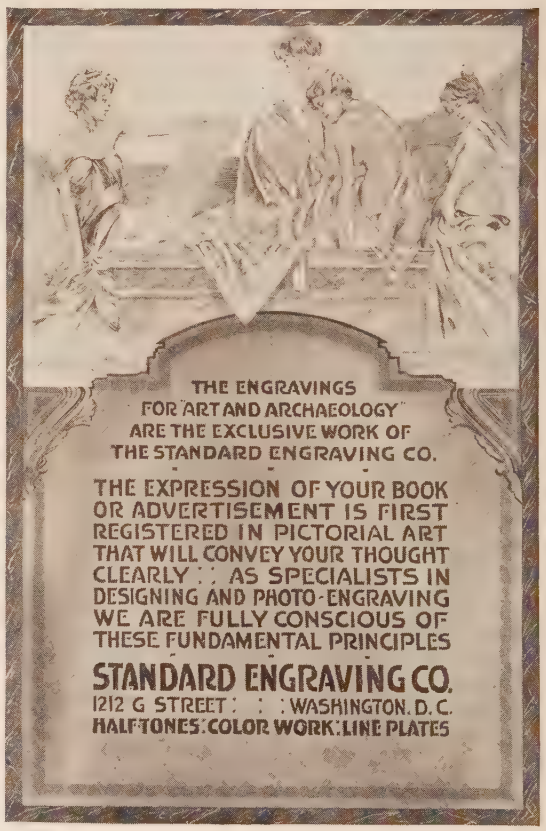
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CONTENTS

THE CHACO CANYON IN 1921 . . . . . *Edgar L. Hewett* 115
Eighteen Illustrations

AN INDIAN BURIAL MOUND (Poem) . . . . . *E. B. Cook* 131

A NAVAHO FOLK TALE OF PUEBLO BONITO . . . . . *Lulu Wade Wetherill and Byron Cummings* 132

THE SCIENTIFIC AESTHETIC OF THE RED MAN:
II. The Fiesta of San Geronimo at Taos . . . . *Marsden Hartley* 137

RECENT ARCHAEOLOGICAL DISCOVERIES IN TENNESSEE . . *William Edward Myer* 141
Eleven Illustrations

THE PIASA PETROGLYPH: THE DEVOURER FROM THE BLUFFS *Tom English* 151

THE FLINT MAKER (Poem) . . . . . *Hartley B. Alexander* 156

NOTES FROM THE GALLERIES 157

CURRENT NOTES AND COMMENTS 163

BOOK CRITIQUES 166

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The Great Bowl at Chettro Ketl. Looking South.

ART and ARCHAEOLOGY

The Arts Throughout the Ages

VOLUME XIV SEPTEMBER, 1922 NUMBER 3

THE CHACO CANYON IN 1921

By EDGAR L. HEWETT

THE Chaco Canyon, from a purely scenic standpoint, is not particularly impressive. It has not the picturesque beauty of the Rito de los Frijoles, nor the color of the Canyon de Chelly. One readily thinks of a dozen canyons in the Southwest to which it is not comparable in many respects. In that of human associations, however, it is without a parallel. Silence brooded here for ages, then was broken by the voices of humanity for some centuries, and then again the silence, more poignant than that of wastes that have remained forever uninhabited. The panorama of those human centuries rolls before the mind. Another trial at life and another failure. Generally it has been man's privilege to transform the earth at will. Mountains are honeycombed with mines; plains and forests have yielded to agriculture; cities have sprung from primeval swamps. Even the sea has been brought into the service of commerce. Here for a millenium man wrought and made these monuments to his vast endeavors, but on the country made no visible lasting impression. The desert remains unmastered.

The Chaco is nowhere more than a mile wide. Its channel is eroded through the sandstone cap, which covers the entire region to a depth of more than two hundred feet. Its level floor of rich, black soil, of high fertility when watered, is cut by an arroyo twenty to thirty feet deep which is always dry except in unusually rainy seasons when there may come a flow for a few hours at a time, or even a few days, from the slopes of the continental divide to the east. Lieutenant Simpson speaks of it as a flowing stream in his report of Colonel Washington's expedition in 1849. The summer of 1921 was one of continuous rains for weeks so that there was again witnessed, for the first time recorded in many years, a steadily flowing stream in the Chaco.

The Chacra plateau, tree-less except for stunted cedar and pinon and a few

Leaning Cliff at Pueblo Bonito. From the East.

gnarled pine that show intense struggle for existence, has an average elevation of 6500 feet. It is marked by shifting sand drifts, broad dry washes, plains sparsely covered with grass and the characteristic sage brush of the Southwest. There are some rattlers, adders and gopher snakes. Small flocks of sheep and goats graze in and about the canyon. There is little to attract the permanent settler. The trader has come and gone. The fore-loper has been here, has felt the pressure of impending civilization—a neighbor or two coming in thirty to forty miles away—and sought greater solitudes. Two or three Navaho families live in the seven miles of canyon here considered or in little side canyons near the trickle of water. That is the extent of the population today. Here are the ruined houses—enormous community structures of stone—which sheltered thousands of people in times long past. Here are their abandoned fields, irrigating ditches, sanctuaries, stairways, picture writings, graves, relics of vast activities—wrapped in the silence of ages.

A Bird's-eye View

From an eminence to the south it can all be seen. The view shown in Mr. Chapman's excellent drawings must have been an inspiring one in the ancient days, as it is now one to awaken profound awe. Bonito, the beautiful, foremost among the towns in point of size, occupies the center of the picture. It was not as beautiful as its neighbors,

Leaning Cliff at Pueblo Bonito. From the West.

Chettro Ketl and Pueblo del Arroyo, but its vast size, the great sweep of its curving walls, the variety in styles of masonry, the evidences of development through long successive periods make it a most impressive sight. Chettro Ketl, the Rain Pueblo, with its fine curving façade, inner towers, immense sanctuary within its court and a half-dozen adjacent smaller structures must have been one of the most striking buildings in ancient northern America. The entire site almost exactly equals in extent that of the palace site at Knossos in Crete. Each covers about six acres. To the left of Bonito lies Taba Kin (Pueblo del Arroyo), in the foreground the great sanctuary of Rinconada, and on the northern skyline a mile away looms Pueblo Alto, traditionally the house of the Great Chief. It is a panorama of ruins that recalls the most noted places of antiquity in the Old World.

The question continually forces itself forward why such tremendous buildings and so many sanctuaries for so few people. All the buildings ever erected by the entire Navaho tribe, easily three times as many people as the Chacones ever numbered, would in volume equal only a small fraction of the structural work in the narrow Chaco canyon. The interesting suggestion has been made that the human animal manifests characteristics similar to those of other animals, insects, birds, etc., in which there is an instinctive impulse to action, an expenditure of vital force beyond the necessities of life, this impulse being so

Ancient Terraces protecting base of cliff from erosion.

imperative and often carried so far as to work great harm to the species. So this vital impulse of the sedentary peoples of the American Cordillera, from New Mexico to Peru, spent itself perhaps in building vast community houses, sanctuaries, temple-pyramids, along with the correlative activity of religious ceremonials, which were incessantly practiced with prodigious zeal. In this connection I have ventured to suggest that this theory supports the idea of the contemporaneity of these cultures, that this building impulse would pass from one community to another, just as in our own time a fad started in one city is imitated in others and eventually extends over the entire country.

Readers of this magazine will recall the extended description of the Chaco Canyon ruins in the January-February number, 1921. That account should be re-read at this time. It will then be unnecessary to repeat the description of this interesting region, the story of the investigations that have made it known, the picture of the ruined towns, or to further describe the particular site, Chettro Ketl, where the excavations were inaugurated in 1920.

The Surprises of the Chaco

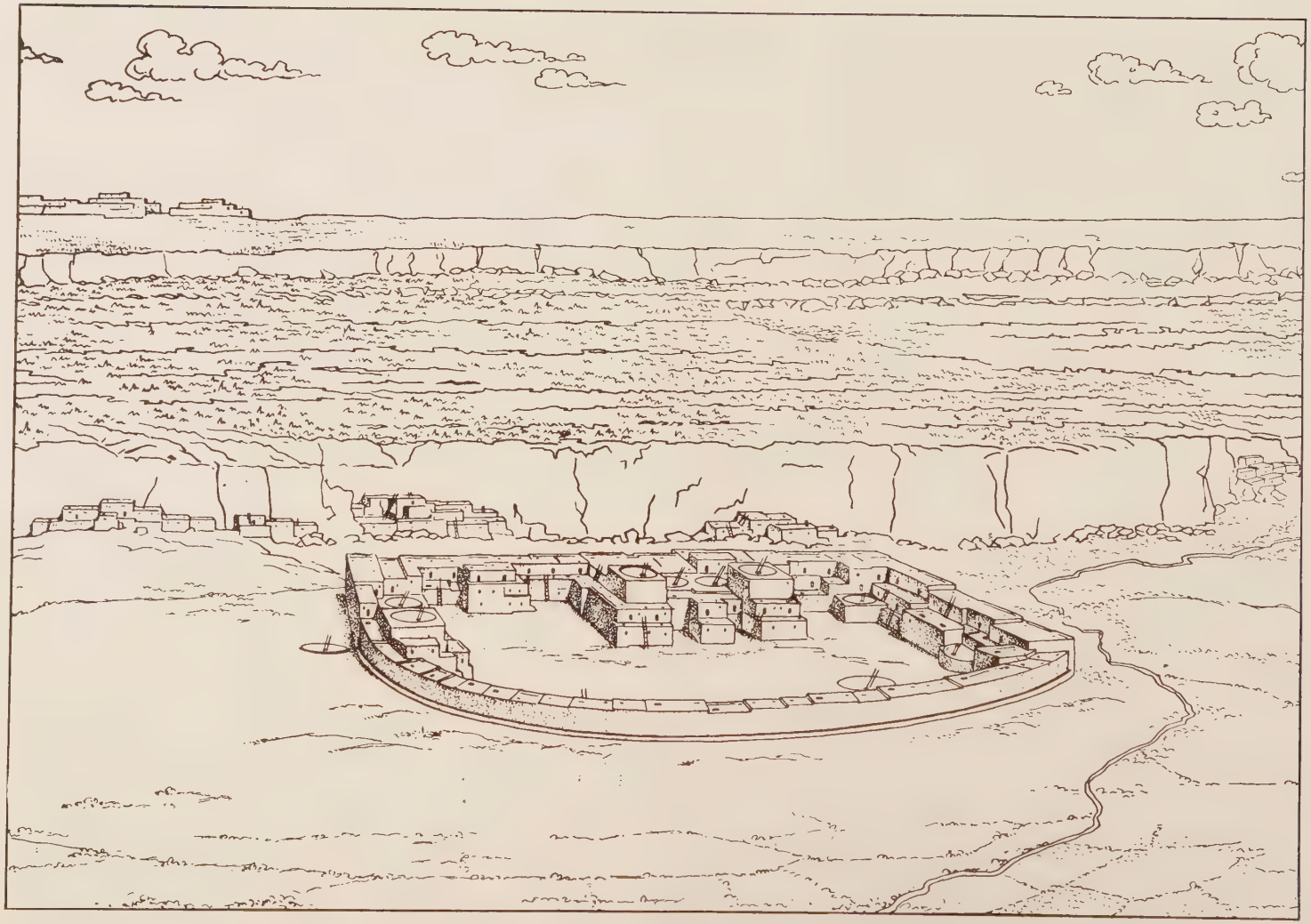
The Chaco is a region of surprises. In an area of unusually definite, matured culture it presents endless variations from type. As was shown in the article above referred to, a simple architectural form prevails in the buildings throughout the district, but towns developed strong individual characteristics not to be seen at all in our villages. Recall the great sweeping curved front wall of Chettro Ketl; in Pueblo Bonito the back wall forming a similar wide curve; in Peñasco Blanco both front and back walls curved, making the building elliptical in its ground plan. The illustrations of masonry heretofore shown express a fine play of imagination in elementary construction not met with in our prosaic brick and stone laying.

The excavation of Pueblo Bonito by the Hyde Exploring Expedition, 1896–1900, laid bare an astonishing number of variants from the two conventional forms of rooms, rectangular and circular;[1] these aberrations, however, being not a result of deliberate planning but incident to the unplanned growth of Pueblo Bonito at the hands of successive generations of builders.

Mr. George Pepper, Field Director for the Hyde Exploring Expedition in the excavation of Pueblo Bonito, has described some of the surprising finds that have stamped the Chacones as a people much out of the ordinary as, e. g., in room 28, one hundred and fourteen cylindrical jars of a type found nowhere else in the Southwest;[2] in room 33, among a great number of interesting articles, a cylindrical basket covered with a mosaic of 1214 pieces of turquoise;[3] and in room 38 the remarkable ornaments of jet inlaid with turquoise,[4] frog, tablet and buckle, which are among the most precious treasures of American Archaeology.

In our excavations of 1920 at Chettro Ketl we learned that the unexpected must constantly be counted on. The walled trench outside the great curved front wall was an entirely new feature in ancient Pueblo architecture. The labyrinth of kivas inside the main court lacked in almost every single example the conformity to type throughout which is so characteristic

[1]See ground plan of Pueblo Bonito, after Holsinger, Art and Archaeology, January-February, 1921.
[2]Anthropological papers of the American Museum of Natural History, Vol. XXVII, 1920.
[3]Putnam Anniversary Volume, pages 196–252 (1909).
[4]Ceremonial Objects and Ornaments from Pueblo Bonito, N. M., American Anthropologist, N. S., Vol. 7, pages 183–197 (1905).



Chettro Ketl and its Environs (Restored). Drawn by Chapman.

Beginning the Excavation of the Great Sanctuary.

of the kivas of the San Juan drainage generally. On the Mesa Verde National Park and along the lower San Juan the kivas, which exist in large numbers, sometimes thirty or more in a single village, are of sufficient uniformity to warrant the designation of a "San Juan type." At Chettro Ketl no two are alike in all respects. Along with these are numerous cists, vaults and pits for which we have little precedent. There is something new to keep the archaeologist guessing every day.

The Great Bowl

Adjoining the area of kivas above referred to, on the west, was a shallow depression of considerable diameter. It is indicated on the rough ground plan of Chettro Ketl published in the account of the excavations of 1920. This has been variously referred to by writers who have described these ruins as a reservoir, a natural depression and a large kiva. As it was contiguous to the kivas last uncovered it was thought best to make it the first work of the season of 1921. It proved to be one of the surprises for which we have become accustomed to look in the Chaco. It proved to be a structure of first importance, and instead of requiring only the beginning of the season for excavation actually occupied the attention of our entire force for the whole period of the excavations.

The general reader will not care for the details of construction and measurement which will be brought out at length in the final report of this work. The accompanying illustrations will give a fair idea of this great bowl with-

Progress of Excavations.

out much additional description. Its average diameter is 62½ ft. Probably three-fourths of its depth was subterranean. The wall is in the best Chaco Canyon masonry and averages about three feet thick. A bench of solid masonry averaging 3½ ft. in width and 4 ft. high extends around the inside of the bowl, except where broken by a recess about 2½ ft. wide on the south and by a stairway on the north which ascends to a rectangular antechamber. It seems likely that the walls of the main structure were elevated about three feet above the plaza level outside. It cannot as yet be determined whether the antechamber on the north, which was a rectangular room having an inside dimension of about 15 x 23 ft., was built up to the full height of a one-story dwelling or not. This antechamber would appear to have been something of unusual importance, as indicated by the finishing of the walls. The masonry forms a narrow bench on the inside and the room has been finely plastered in what is now a good old ivory tint. It has a solidly packed floor of adobe. There is nothing to indicate how the antechamber was roofed. A massive bench occupies the south side of the chamber from the top of which one may descend into the great circular room. Seven wooden steps formed this stairway. They were partially rotted out and therefore were replaced by new ones intended to duplicate the original as nearly as possible. From the base of the stairway a stone landing extends from which two steps brings one to the floor of the great circular room.

The Antechamber Finished.

In looking at the photograph of this circular chamber, one gains the impression that the wall was pierced by small square windows, at regular intervals apart. However, the wall is not entirely pierced, so these may be spoken of as niches rather than windows. They are twenty-nine in number and average roughly about a foot square. At the base of the massive bench, which averages 3½ to 4 ft. high, is to be seen portions of a smaller bench elevated only a few inches above the floor. This may have originally extended the whole distance around the room, but only fragments of it are left. The main bench is in an almost perfect state of preservation and the walls have required very little repair to put them in condition to last for ages.

On the floor of the circular room are two rectangular pits inclosed in walls of solid masonry. The outer wall of each is more than double the thickness of the inner wall. They were found almost filled with ash and charcoal. Thorough examination of the contents disclosed no bones or other articles that could be identified. Everything that had gone into these fire-boxes had been completely incinerated. The inside dimensions of the pits are roughly 4½ x 8 ft. They were floored with stone laid in adobe. The height of the pit walls above the floor of the main chamber would average about 15 inches. Their average depth was about 3½ ft.

In the floor of the main chamber, plainly seen in the photographs, are

The Great Bowl Excavated. Looking North.

four holes, 26 feet apart, forming an exact square, averaging 4 ft. deep, ranging in diameter from 21 to 46 inches. The largest, which may be seen at the south end of the fire-pit on the left looking toward the stairway, is lined with masonry and floored with a slab of sandstone. The others are floored with broken rock. In these holes rested enormous columns which supported the roof. These probably stood not less than 12 feet high. The base of one of the columns remained in place and is shown in the picture. It was a pine log, 26½ inches in diameter. So far as I know this is the largest timber that has been found in the Chaco buildings. Unfortunately, it is so far decayed that it cannot be preserved.

Between the two fire-vaults stands a solid mass of masonry slightly more than 5 feet square. It is still 18 inches high and has probably been considerably reduced since the structure fell into ruin. For lack of any better term, it may be spoken of as an altar. Slightly over a foot away from it to the south is a ruined fire-pit, roughly circular, quite shallow and nearly 5 feet in diameter.

Remains of sufficient timbers were found to show that the chamber was roofed, at least in part. Heavy logs rested on the tops of the columns, thus forming a perfect square over the central part of the chamber, which may have remained open to the sky. Smaller logs or vigas extended from these heavy girders to the stone rim. These were probably laid from two to three

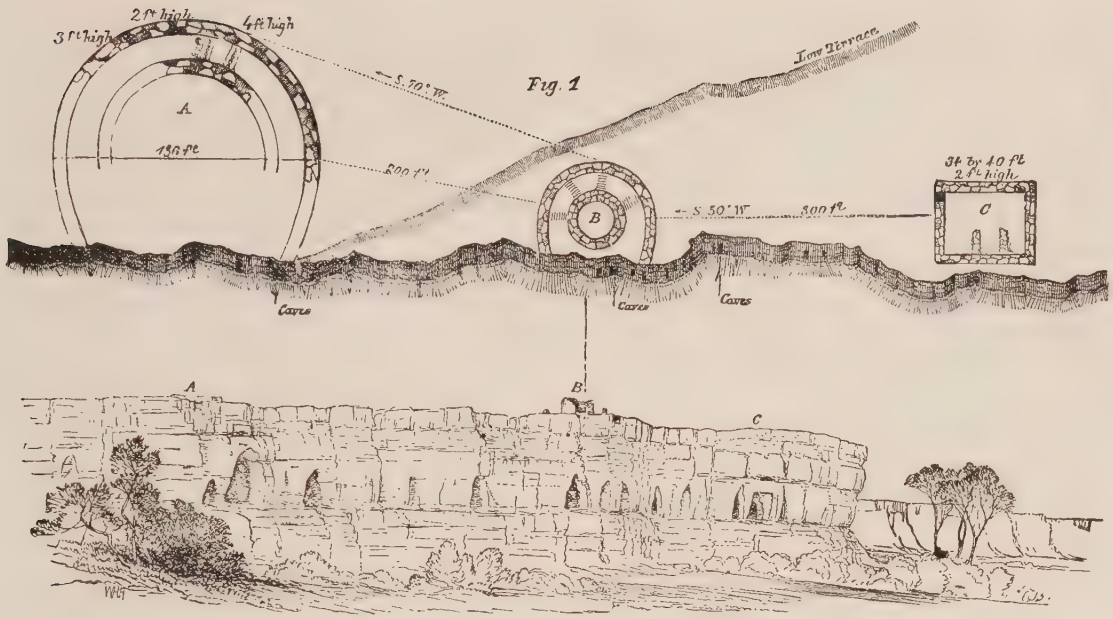
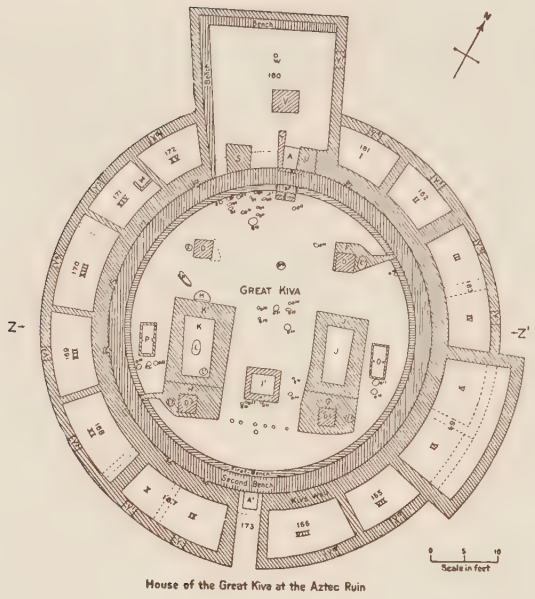


Fig. 2.

Double Walled Towers on San Juan River. From Report by Wm. H. Holmes, 1876.

feet apart. Lighter poles were laid across these after the manner of some of the ceilings shown in the illustrations of this article. These in turn were covered with slabs of cedar upon which cedar bark was laid and the whole solidly covered with adobe.

We have then uncovered one of the most remarkable structures known to the archaeologist of the Southwest. It is probable that Casa Rinconada, which we propose to excavate in the fall of 1922, will almost exactly duplicate this. It may even be a few inches greater in diameter, and is isolated from any important building. A similar one was excavated in Pueblo Bonito by the Hyde Exploring Expedition and has been re-excavated by the National Geographic Society. Its diameter is about ten feet less than that of the great bowl in Chettro Ketl and it is lacking in other interesting features. Others will probably be found in the towns of the Chaco and in time enough evidence may turn up to warrant an explanation of their uses. In the absence of any knowledge to the contrary, they have been considered highly specialized kivas. Perhaps for the present it may be permissible to speak of them as the "greater sanctuaries," in order to differentiate them from the kivas of normal type and dimensions. It should be frankly stated, however, that no one could as yet speak authoritatively of their uses. The one herein described has unquestionably been subjected to great heat, not such as would have been caused merely by the burning out of the roof timbers. The pits in the floor are true fire-vaults, the stone lining being thoroughly baked by long continued heat. They are large enough to have served for the roasting of a whole buffalo and they would have served perfectly for the incineration of the dead. The adobe floor of the room from the fire vaults to the wall was in many places thoroughly baked and the



From Report by Earl H. Morris, 1921.

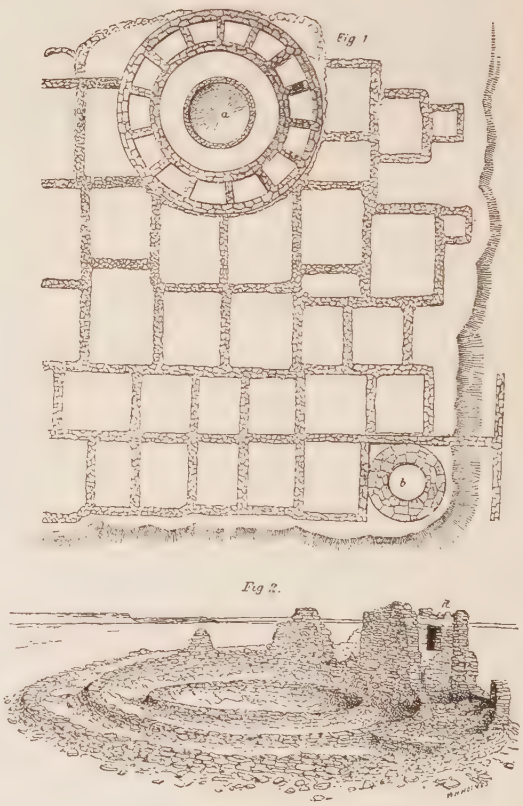
circular walls, especially those of the massive bench and in places the upper zone, were deeply scorched with the heat, even the sandstone under the plaster being browned to a considerable depth below the surface.

San Juan Relations

It seems not unlikely that the structure excavated at Aztec on the San Juan river, by the American Museum of Natural History, is a variant of the type herein described. It has been designated by Mr. Earl Morris, who excavated it, as the House of the Great Kiva. From his report[1] I quote the following paragraphs: "The House of the Great Kiva is essentially circular in form and is composed of two distinct parts; an inner circle, the kiva proper; and an outer circle which is, in reality, a concentric ring of arc-shaped rooms. With reasonable accuracy the building may be likened to an enormous wheel, of which the kiva, though disproportionately large, is the hub, and the spaces between the stubby spokes the rooms of the encircling ring. The hub of the wheel is let down into the earth sufficiently so that the spokes and rim rest upon the last used level of the court, thus making what remains of the kiva subterranean, and the enclosing chambers above ground in the relation shown by the accompanying cross-section.

"The diameter of the kiva at floor level is 41 feet 3½ inches, and 3 feet above the floor, 48 feet 3½ inches. This difference is due to the presence within the bounding wall of two concentric rings of masonry indicated in the ground plan as the first bench and the second bench. The first bench is

[1]Anthropological Papers of the American Museum of Natural History, Vol. XXVI, Part 2 (1921).



Triple-walled Tower on the Mt. Elmo. From Report by Wm. H. Holmes, 1876.

Base of Great Column.

one foot in width. Because of the unevenness of the floor along its eastern arc, this bench lies entirely beneath the former, while at the west side 6 inches of it are visible. The second bench averages 2 feet 6 inches in width, and 1 foot 6 inches in height. Both benches, though somewhat irregular, are continuous, being broken by no niches or recesses whatsoever. The kiva wall varies somewhat from 2 feet 6 inches in thickness and stands to a height of 7 feet 8 inches."

Reference to the accompanying cut shows striking points of resemblance to the Chettro Ketl structure. It is considerably smaller in size but has the feature not yet found in the Chaco Canyon ruins of small peripheral chambers encircling the central room. The Aztec structure therefore seems to be nearer related to what Mr. William H. Holmes described in 1876[1] as double-walled and triple-walled towers. Note the similarity in these ground plans. One of those described by Mr. Holmes seems to have been of enormous size, 136 ft. in diameter, almost triple the diameter of the one at Aztec, and double the one at Chettro Ketl; but little seems to have remained, even at that early date, of the building described. I quote from his report: "The small tower *b* is situated on the brink of the cliff, directly above one of the principal groups of cave-houses. It is neatly built of stone, which, although not hewn, is so carefully chosen and adjusted to the curve that the wall is quite regular. The wall is 18 inches thick and from 2 to 6 feet in height.

"Long lines of debris, radiating from all sides, indicate that it has been much higher, and has but recently fallen. This tower is enclosed by a wall, also circular in form, but open toward the cliff, as seen in the drawing; the ends projecting forward and irregular and broken as if portions had fallen. Its construction is like that of the inner wall, but the height is not more than 3 feet at any point. The diameter of the inner circle is 12 feet, that of the outer 22 feet; the distance, therefore, between the walls is a little less than 4 feet. In this space there are indications of partition walls that have originally divided it into a number of apartments.

"About one hundred and fifty yards to the southwest of this ruin are the remains of another similar structure. It has been, however, on a much grander scale. The walls are 26 inches thick, and indicate a diameter in the outer wall of about 140 feet. They are not above 4 feet high at any point, and

[1]Report on the Ancient Ruins of Southwestern Colorado (1875-1876), U. S. Geological Survey.

Stairway to the Antechamber.

in the parts toward the cliff can only be traced by a low ridge of earth. The remaining fragments of wall are at the remoter parts of the circles, and are in every respect like the walls already described. The inner wall, which can be traced but a short distance, is 8½ feet from the outer, and has been connected by partition walls, as in the other case.

"The first impression given by this curious enclosure is that it was designed for a 'corral,' and used for the protection of herds of domestic animals; but since these people are not known to have possessed domestic animals, and when we further consider that enclosures of pickets would have served this purpose as well as such a massive and extraordinary structure, we can hardly avoid assigning it to some other use, which use, doubtless similar to that of the smaller tower, is very naturally suggested by its location and construction. That they both belonged to the community of cave-dwellers, and served as their fortresses, council chambers, and places of worship, would seem to be natural and reasonable inferences."

Further on, describing a triple-walled tower, he says:

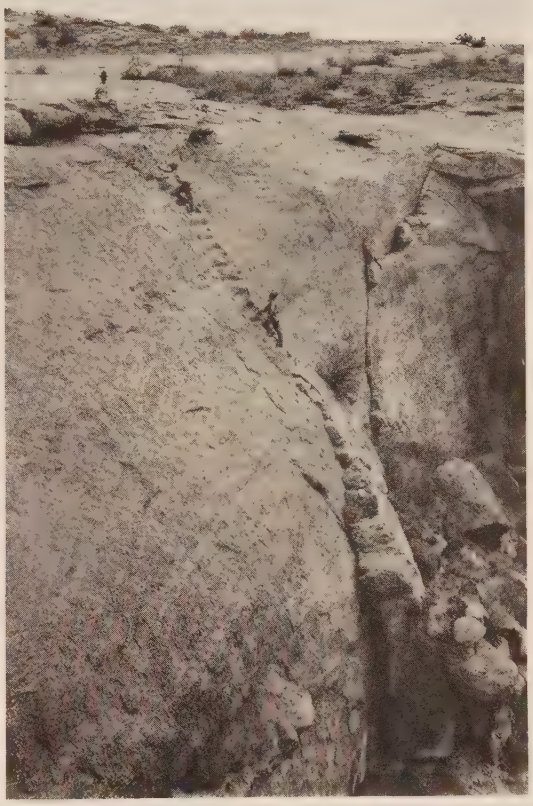
"The group partially illustrated in this plate is situated on a low bench within a mile of the main McElmo, and near a dry wash that enters that stream from the south. It seems to have been a compact village or community-dwelling, consisting of two circular buildings and a great number of rectangular apartments. The circular structures or towers have been built, in the usual manner, of roughly hewn stone, and rank among the very best specimens of this ancient architecture. The great tower is especially noticeable on account of the occurrence of a third wall, as seen in the drawing and in the plan at *a*. In dimensions it is almost identical with the great tower of the Rio Mancos. The walls are traceable nearly all the way round, and the space between the two outer ones, which is about 5 feet in width, contains fourteen apartments or cells. The walls about one of these cells are still standing to the height of 12 feet; but the interior cannot be examined on account of the rubbish which fills it to the top. No openings are noticeable in the circular walls, but door-ways seem to have been made to communicate between the apartments; one is preserved at *d*. The inner wall has not been as high or strong as the others, and has served simply to enclose the estufa."

A fruitful field still remains in the study of these circular structures of the Southwest. The lesser form still re-

mains in use among the Pueblos, in some cases almost wholly subterranean but usually partly above ground. Almost every Indian town has these sanctuaries still in use and so well understood are they that little is left to conjecture. But the "greater sanctuaries," if we may so call them, have no place among the Pueblos of the present day.

The Menace of the Cliffs

Aside from the excavations of 1921 observations were extended to the general archaeological conditions of the Canyon. The remains of the fine stairway shown in the illustration are to be seen just back of Chettro Ketl. This appears to have been the main trail to the mesa top and probably toward the mountains to the northeast. Several photographs are shown for the purpose of further illustrating the conjecture published last year that one cause of the abandonment of the Chaco Canyon towns was the menace of the falling masses of rock from the adjacent cliffs. Referring to the illustrations of the cliff just back of Pueblo Bonito it will be seen that this enormous mass of rock actually tilts forward at the present time. It is detached from the ledge back of it by a crevice through which one can easily pass. One picture shows the horizontal crack formed by the tilting forward of the enormous balanced rock, another shows that the comparatively soft stratum at the base is being crushed by the vast weight above. It is safe to predict that at some time in the future these thousands of tons of sandstone will topple forward. When that occurs there will probably be little left of Pueblo Bonito. Let us hope that some thousands of years will elapse before this catastrophe will occur. A typical illustration is inserted showing the progress that has been made in the study of ceiling construction in Chettro Ketl and Pueblo Bonito.



Grand Stairway from Chettro Ketl to the Mesa.

Ancient Irrigation

A word should be said here with reference to the irrigating enterprises of the Chacones. The best preserved works in the canyon are at Una Vida, three miles above Pueblo Bonito, and those belonging to the pueblo of Penasco Blanco, three miles below Bonito. Near Una Vida, which is situated against the north wall of the canyon, a

A typical Chaco Canyon Ceiling.

reservoir and system of ditches is discernible. Peñasco Blanco is situated on top of the mesa south of the canyon. Its fields lay in the bottom north of the Pueblo. No great area was cultivated and it is difficult to understand how such a sea of sand could ever have produced sustenance for such a large community. The reservoir was built in a bed of sand where seepage would have been so great as to render it nearly useless. This was overcome, at least partially, by lining the bottom with clay and slabs of stone. This clay when indurated formed a moderately good cement and rendered the reservoir fairly effective. The waters from the main channel of the Chaco were diverted by means of a weir and conducted to the reservoir. Seepage in the weir was overcome by the same method as in the reservoir.

Kin Klizhin is a small ruin on the mesa between seven and eight miles southwest of Pueblo Bonito. Here are fairly well preserved irrigation works. The pueblo stands on a sandy hill. About an eighth of a mile away is a broad wash and in this are remains of a stone dam. On the east side is a waste-way cut through the solid rock. The reservoir was large enough to impound a meager supply of water for the irrigation of the fields cultivated by the pueblo. These consisted of possibly two hundred acres. The ditch which conducted the water from the reservoir to the fields is filled with sand but plainly discernible.

The best example of irrigation works in the entire Chaco system is that at Kin Biniola. This ruin is about fifteen miles southwest of Pueblo Bonito. The ruin is in the basin of a wash of the same name which is tributary to Chaco Canyon. The valley is here quite broad and on the eastern side is limited by a low mesa, at the base of which stand the ruins of the pueblo. The wash is about a third of a mile to the west. South of the ruins is a large natural depression, which was made to serve as a reservoir for the flood waters diverted from the wash. A ditch fully two miles long conducted the water from this lake to the fields, which were quite extensive. The ditch is carried around the mesa and along a series of sand hills on a fairly uniform grade. It was mainly earthwork, but whenever necessary the lower border was reinforced with retaining walls of stone, portions of which still remain in place.

At Kin Yaah, a small ruin thirty miles south of Chaco Canyon, there are vestiges of an irrigation system. This ruin is situated on an open plain, surrounded by a large area of irrigable land. The works consist of two reservoirs and a canal 25 ft. to 30 ft. wide and in places 3 ft. or 4 ft. deep.

Representations made to the Department of the Interior that errors in the early surveys of that region made it impossible to accurately locate any of the ruined towns of the Chaco, all of which were included in the proclamation of President Roosevelt in 1907, creating the Chaco Canyon National Monument, led the Department to order a re-survey of the entire district. This was done by the General Land Office during the summer of 1921. The result was rather disturbing. Only the following towns are found to be on Government land and therefore under the protection of the "Preservation of Antiquities Act": Pueblo Pintado, Wijiji, Chettro Ketl, Pueblo Bonito, Pueblo del Arroyo, Tsin Kletsin, Pueblo Alto, part of Peñasco Blanco and Kin Biniola. Towns that fall outside the public domain and are therefore unprotected, except as private owners may be interested, are: Una Vida, Hungo Pavi, Casa Rinconada, Casa Chiquita, Kin Kletso, part of Peñasco Blanco and Kin Klizhin. The School is making an effort to secure relinquishments from private owners so that the entire group may be preserved.

School of American Research,
Santa Fe, New Mexico.

AN INDIAN BURIAL MOUND

By E. B. Cook

The sculptured buttes cut cameo-wise
Against the bold blue of the skies,
Above his grave.

No catafalque, no lordly marble tomb;
But,—in his native hill side carved,—a room
His bones to save.

The tomb profaned, simple would show his needs;
A shard or two, a strand of turquoise beads
The spirits crave.

Here ruled his tribe before we bade them go.
Here buffalo and deer paid tribute to his bow;
Here lies a brave!

A NAVAHO FOLK TALE OF PUEBLO BONITO

By Lulu Wade Wetherill *and* Byron Cummings

FOR many years the great community house in Chaco Canyon known as Pueblo Bonito has attracted the attention of the traveler who strayed that way and has been of great interest to students who are trying to trace the development of the early American tribes. With the undertaking of more definite investigation of the ruins of the region and the further excavation and study of this great pueblo, interest is widened and quickened.

For many, many generations the Ushinnie clan of the Navaho has handed down its legendary history. A part of the story as told by several of their oldest and most influential medicine men is a tale of primitive romance and social custom that throws some light upon the character of the ancient people of the Navaho Desert.

The abandonment of the village, which now lies in ruins near Aztec, New Mexico, was in Navaho legendry caused by a drouth of twelve years' duration, which compelled the people to move in search of new fields. They went in small bands to every place in the country where there might be sufficient moisture to raise enough food to maintain life until such a time as the gods might see fit to give them rain again.

After a number of years of suffering—twelve the legend goes—they were settled in different places throughout the country, and the rains came and they began to prosper and increase. A few of the clans had moved to Chaco Canyon where they built Pueblo Bonito and many other villages that now lie in ruins. Most of these were the different branches of the Ushinnies, or Salt clan, called collectively Nastashie. This name was given them from the style of their shirts. These were made with a band of a different weave around the waist and chest and across the shoulders. These shirts were of black, but after the coming of the Spaniards, the bands at the waist, chest and across the shoulders were made of bayetta, if it were possible to get it.

After the rains came, they grew very prosperous, having large crops and accumulating a great many jewels of turquoise, shell and jet. It was the custom to have in the principal village of a group, which in this case was Pueblo Bonito, a girl who was kept as the wife of the Sun and was called Do-be-det-clod. From birth until death she never saw the light of day nor was she ever seen by the men of the villages except by her father or the medicine man who was present at her birth. This girl was always the daughter of a woman of the Beaver clan who was married to a man of the Alligator clan. These two clans were aristocrats and of much higher intelligence than the others. They were much lighter in complexion and their hair brown instead of black like the other people. For this reason, the wife of the Sun was chosen from these clans.

When the wife of the Sun was within fifteen to eighteen years of the time when she would be expected to die and in time that another girl might grow to womanhood before this event, a child was chosen to take her place. The births were carefully watched. If a birth occurred at sunset or sunrise, and a sunbeam fell across the face of

the babe the child, if a girl, was chosen for the wife of the Sun; if a boy, he was raised to a high position in the village. If the child was a girl, she was at once painted black, as a symbol of the dark, and yellow streaks were painted down her face and breast. Prayers were said over her, chants sung and ceremonies held four days in the room where the wife of the Sun lived. The ceremonies were performed by the medicine women of the village. The people of the villages held a great feast of thanksgiving, that one wife of the sun was still living when another was born, for should the wife of the sun die before another was ready to take her place, some terrible calamity would happen to them. After the four days of ceremony, the child was left with two young women as attendants, who stayed with her all the time to care for her wants. When old enough, she was trained by the wife of the Sun to take her place when the time came for her to go home.

The village of Pueblo Bonito, or Ysa-be-ad-ne-i, had a very beautiful girl growing up to be the wife of the Sun. As she became older the gods seemed to smile on the villages more and more, until there came among them a man from the south, from somewhere near the present village of Acoma or Laguna. This man was a great gambler and he told the people that they could not win any kind of game from him for his great grandmother had taught him a ceremony which he had successfully performed. She had told him to take some of the pollen of the Nas-shoie-docleas-e-nutto, some corn pollen and pollen of other plants to the hole of the chameleon, lie down in front of the hole and draw a straight line with the pollen, place some of it in his hand, palm upward, at the end of the line and chant four songs. As he sang the chameleon would come from his hole, and eat the pollen, following the line till he reached the man's hand. If he did not move while the chameleon was out and while he was singing, he would always win, but that if he should move or forget any of the songs, he would lose all he had. He told them that it was considered very risky, but that he had carried it to a successful completion.

The people found that this man's name was Utsos Docleas, or Blue Feather, from a long blue feather which he wore and which his family had brought from the far south. Because he had roamed about so much, and since the people did not know his family history, they classed him with the Butterfly clan, of which there were a great many at Pueblo Bonito. Blue Feather won steadily the games that he had taught the men of the village and then turned to learning their games.

The people had a task which they used several times a year to test the strength of the men. A post was set deep into the ground, and the young man who could push it over with the least effort was the leader of the dances until someone appeared who could push over the post with less effort or without as many trials. Blue Feather played and won the games, but would not take the test of strength, although they asked him to do so every time they held the test. He continued to win at all the other games until the people commenced to call him No-el-pee-ie, or the winner.

The old men tried to stop the gambling, as this stranger was winning everything the boys and young men had, even to their robes; but could do nothing with them. The old men then

noticed that the younger men were beginning to act very strangely at times, but thought it was due to lack of sleep. Soon they gambled all the time and would not do the work that was necessary. The old men began to investigate and found that this stranger had taught them to chew a gum, obtained from a plant which grew about the country and had something of the effect of opium or alcohol. The old men thought they would try some of this weed and they too soon became addicted to it and began to gamble with the rest of the men. This was what the stranger wanted. He now won one village after another, then he won the wives, sisters and daughters of them all; and as he had won all the people, he was ruler. But still he could not be leader in the dances as he would not take the test of strength.

One fête day he said he would set the posts for the test, which they allowed him to do. He set one very strong cedar post and one very large but worm-eaten pinon. He then said he would take the first test as he was the ruler and had never taken it. When the hour came for the test he was the first one ready and walked to the largest post and putting his shoulder against it with very little effort pushed it over. The people were greatly surprised at his great strength and some of them said there must be something wrong and went and examined it; but they could find nothing wrong with it as he had been clever enough to put pitch in the worm holes, which made it look stronger than ever.

Now he was ruler indeed. He sent a runner to his home in the south to bring his family to live with him in one of the villages. His father and his sister and her family came. A year later his brother and his twin sisters came. One of these sisters was a great weaver. There was no one who could weave or embroider as she could. She wove cloth, which the Navaho say looked like frost on the trees in winter, with deer and other animals worked in it. She had learned this art from her mother and grandmother. This skill and her great beauty made her much sought after among the women and young men of the village, so she and her brother were indeed rulers.

Noelpeeie would not allow the villagers to have much of the blue gum, just enough to keep them under control, and the village began to prosper again. Things went well for a few years and then the people began to grow dissatisfied with Noelpeeie's rule and to enquire who this stranger was that had come among them and won them by no fair means. They finally decided on sending out runners to the neighboring villages. These runners started south, traveling for several days until they reached the village of Tsa-nal-swean near the present villages of Acoma or Laguna, and here they learned the story of Blue Feather.

The Story of Blue Feather

Many years ago Shawn-be-clole-uskee (Sunbeam boy) with several other men left the village of Toh Dissos (Glistening Water) on a trading expedition. This village was situated by a lake of rainbow colors some thirty-eight days' journey to the south. He left his family, which consisted of his mother, Lut-tah-hot-te, who lived at the point of the lake; his father, his sister, Utsos-ba-bagon (girl with a house made of feather blankets); and his brother, Encleas-yoe-el-issie (boy with the shoes beaded with jewels). When he had been gone for several months, his father became ill and was

not expected to live. The mother sent his younger brother and sister out to bear him the news of his father's illness.

Some of the trading party had turned back from the village of Blackwater. This lay twenty-five days' journey to the north. Knowing this much of their brother's route, the two young people started on their twenty-five days' journey. Reaching Toh-Klizhin (Black Water) they found that their brother had gone to the village of Toh Klitso (Yellow Water), which lay nearly as far south as Toh Dissos and far to the west. While resting here, some traders came from Toh Klitso and they learned from them that their brother was at Toh Klitso and was married. The brother and sister had planned to go to Toh Klitso, but they were very tired, and having learned that their brother was married, they tarried for some time, seeing a great deal of the people of Toh Klizhin and the traders from Toh Klitso.

Utsoas-ba-bagon fell in love with one of the men of this trading group from Toh Klitso, a member of the Spider Clan, who returned her love and asked her to marry him. This she could not do without the consent of her mother. The brother and sister still tarried at Toh Klizhin until one day, to their surprise, their mother came, bearing the news of their father's death, which happened the day after they had left their village. After waiting many months for their return, she had joined a party of traders and followed them. The mother saw the attachment which had grown between Utsoas-ba-bagon and the man from Toh Klitso and gave her consent to the marriage. She and her son started on in their search for the older brother. Arriving at Toh Klitso, they found that their son had lost his wife and had gone on to another village, Toh Denee (Gurgling Springs), which lay to the south and west of Toh Klitso. They went to Toh Denee and arriving there found that he had gone on to the village of Toh Hie Kan (Springs under the Rocks), a short distance from the ocean. They also learned from some travelers that the son and brother had again married and taken up his abode with the villagers. Learning this, the mother became discouraged and started back to Toh Dissos, intending to take her children with her. When she arrived at Toh Klizhin, after an absence of nearly nine years, she found that her daughter had two children, one Nut-Claie, a hermaphrodite, about eight years of age, and the other a girl of about seven, called How-how-tillie, because her hair grew very fast and was like the silk of the corn. The mother tried to get her daughter to go back with her to their home at Toh Dissos, but her husband and his people wanted her to return with them to their home at Toh Klitso. Not being able to agree, they all finally decided to go on to a place further north, called Tsa-nil-tsin. Here they built their home. But the mother was not satisfied. She went back to her home at Toh Dissos, but could not stand it away from her children. So she returned to Toh Klizhin, but was not satisfied there, as she still longed for her daughter. She finally went to her daughter at Tsa-nil-tsin, where she saw her grandchildren grow up. She taught them the arts of weaving and embroidery, in which she was very skilled and saw her grand-daughter grow up and marry a man of the Butterfly clan. This girl gave birth to four children, the first a girl, the second a boy and the third and fourth a pair of twins. The son grew to be a man of strong personality and a lucky gambler. He decided

to go out and win the world and it was he that came to Pueblo Bonito as a stranger.

After the runners had learned all that the people of Tsa-nil-tsin could tell them, they returned to their own people and told them what they had learned.

During the few years of prosperity following Noelpeeie's winning of the villages, he tried to curb the use of the blue gum which he had introduced, but did not make much headway and became addicted to the habit himself. He soon came to the point where he did not care what became of himself or the people whose ruler he was. Relieved of the restraint that he had exerted over them, the people went from bad to worse. The men gambled all the time. They did not take care of their corn fields nor did they perform any of their religious ceremonies. Then what they considered the worst of all befell them.

Do-bedet-clod was accustomed to go out after night-fall for exercise. One night while out for a walk with her attendants Noelpeeie saw her and determined to take her for his wife. The people tried to talk him out of it, but did not succeed. He said that she already belonged to him as he had won her with all the village.

From now on they began to suffer. An early frost came and their corn did not mature. As they did not have the usual amount stored away they were exceedingly hungry before spring came, and the dissatisfaction grew. Spring came; there was no rain and again they had no crops. Things came to such a state that the people arose and decided to banish Noelpeeie and return Do-bedet-clod, the wife of the Sun, to the room from which she had been taken. He was banished and held prisoner at a place called Talth-nah-zin, about eighteen miles from Pueblo Bonito. The people now tried to resume their religious ceremonies, but a great deal had been forgotten. Most of the old men had died from starvation and the effects of the terrible habit they had formed, and many of the old ceremonies, medicines and chants were lost forever. Things finally grew so bad that they decided to remove what they considered the cause of their downfall. They killed Noelpeeie and buried him at the base of a large rock. After the burial they swore never to imitate him in any manner and from that day on never wore feathers in their hair. Conditions now had become such that they were compelled to move from Chaco Canyon. They sent runners out to find new fields and settled at or near Zuni.

Thus there lingers in the memory of the old men of the Ushinnie Clan this story of their ancestors and the sad misfortunes that befell them in the period of their history made in Chaco Canyon. Tradition further relates that this bridal chamber, the home of the Bride of the Sun, was highly decorated with the symbols of their religion. It is said that a room of such description containing many pieces of beautiful pottery was found in Pueblo Bonito some years ago. Recently there was reported the finding of a similar room in the ruin at Aztec from whence, this story declares, the people of Chaco Canyon came.

University of Arizona.

THE SCIENTIFIC ESTHETIC OF THE REDMAN[1]

By MARSDEN HARTLEY

II.

The Fiesta of San Geronimo at Taos

WHAT San Geronimo has to do with our American Indian will never be quite clear, and we shall never be able to reconcile the dance with the confessional. It is, however, San Geronimo day among the Pueblo Indians of Taos. In this pueblo they are said to elect their new governor each year by means of the foot-race, an ancient institution prevailing at least in this tribe. There is as I have said a something irrelevant and incongruous in the catholic adherence among these original people. We can not imagine them on their knees asking for absolution. It is not thinkable. It is then a far cry from the celebration of high mass in the little mission church, quaint enough in appearance both as to exterior and interior. We can associate it naturally with the Mexicans, for that is their racial survival, and with the Penitentes also can we find flagellation and earlier human crucifixion somehow attachable. But it is a sophistication that has nothing whatever to do with the redman, or with the inner response of these once so free people. They had larger views to impose upon themselves, they had the sun to sign themselves to, and their ethics and morality as well as their spiritual conceptions have been too highly evolved to make such compromises. It is a something super-imposed, certainly. You are conscious of that when you enter the little homes of the Indians in the pueblo, and only if you are somehow friendly with them, and you observe on their clean white walls the chromos of Christ and Mary bought at the general store, hanging askew on the walls, along with the photos of their families, and proud pictures of their sons in football clothes, indications of school life away from home. If you see them daily and note a certain calm, a mystical communion with the elements as deified by them in various handsome forms, you find the almost humorous discrepancy between the natural religion which is their own invention, and that of the penitente for example. But the picture of the morning changed with the placing of the effigy of the Virgin on the high throne improvised for the occasion, to which she was brought in stately procession from the church after mass, painted with hues hardly discreet in a of lady her origin.

Immediately there was ushered in to the sunlight the more insistent and decorative aspect of the day. There came the parade of the racers of the pueblo this side of the little river, twenty or more of them, strong muscular bodies, fine specimens of manly vigor, superbly painted in earth hues of deep Indian red, pale ochrous yellow, light brown and soft tawny pink, some of them from the knees down tinted with stone grey, and touched now and then with tints of sinister blue. About their loins were draped cloths of various tones, and upon their feet the usual beaded moccasins, the which they shed and piled in a heap when the starter appeared, while along their thighs and arms and breasts were placed at intervals in design, small feathers from the eagle's breast, and their shiny blueblack

[1] For Part I see ART AND ARCHAEOLOGY, XIII, No. 3, p. 103, (March, 1922).

heads were sprinkled with eagle's down and the coils of their hair wound with coloured bands, or now and then with strips of mink fur. It was a handsome scene for remembrance, this splendid array of bodies and intelligent decoration, so in keeping with their own idea of life, their own fascinating notion of rhythm and of form.

You were impressed at once with their fine estheticism, and the notable athleticism of the men and boys, so strong of muscle and of sinew, and the running proved still further the exceptional skill of them. They ran with the agility and the rapidity of panthers and all of the grace of the shapely animal in the race. They are tense men of brawn and terrific energy. Beside the visiting Apaches, who are mostly tall men of a much more nomadic appearance, these Pueblo Indians seem soft and round and are by nature more the domestic, agricultural type. They train themselves from year to year, and are kept meanwhile in trim by their agricultural pursuits. The religion of confession and absolution is replaced with a more convincing religion of the body. They keep their bodies in the key of life around them, these high mountains and high plains, clear sunlight and wide skies. They are among the most normal in health, and show signs of the strict morality and ethics which they impose upon themselves, evolved out of their own history. They did not have perhaps the appearance of monoliths against the morning sky with delicately chiseled profiles as has the Apache, with his sombrero towering above him like an eastern minaret, and you get the oriental touch in the Taos Indians through the white blanket which they affect in all weather, covering themselves to the eyes in the manner of orientals. You can find remarkable correspondence among the Indians to almost exact copying of carved Chinese idols for instance, the little wise men who sit pondering on the immensities appearing in the very old men of the tribe who sit in the sun and expose their worn ribs to the warmth, to the young Egyptian god, or the Assyrian warrior with his so virile physique so equal to the stress of battle and the rigours of the hunt.

It was a day among the splendors of an old time, the perpetuation of customs of two thousand years, and even more probably. Then it was probably more the living custom, and now in spite of its reality, you feel the quality of tradition paramount. It is the Indian's only means of holding to his so vanishing racial outline. There is no other hope for him. He is now one of the spectacles of the earth, and though I know the older dignitaries of the tribe resent the alien intrusion of the white with the same persistence, and teach with all the force of their being the importance of remaining true to the tenets and customs of their so dignified and haughty race, there is, as there is sure to be, a lessening of interest in the younger men who through influences around them are finding it easier to succumb to the systems and modes of white men, some of them alas, not so "white" as they might be; but all these various influences are forgotten in the spectacle of the race. There was the splendid tensity of life in the scene of the long row of strong nude bodies painted with animal and bird-like tones, and as you stood watching the starter brushing the thighs of each runner with a long feather from an eagle's wing to give him speed, you had another kind of physical and mystical splendour for your eye that you would find nowhere else in the world, or cer-

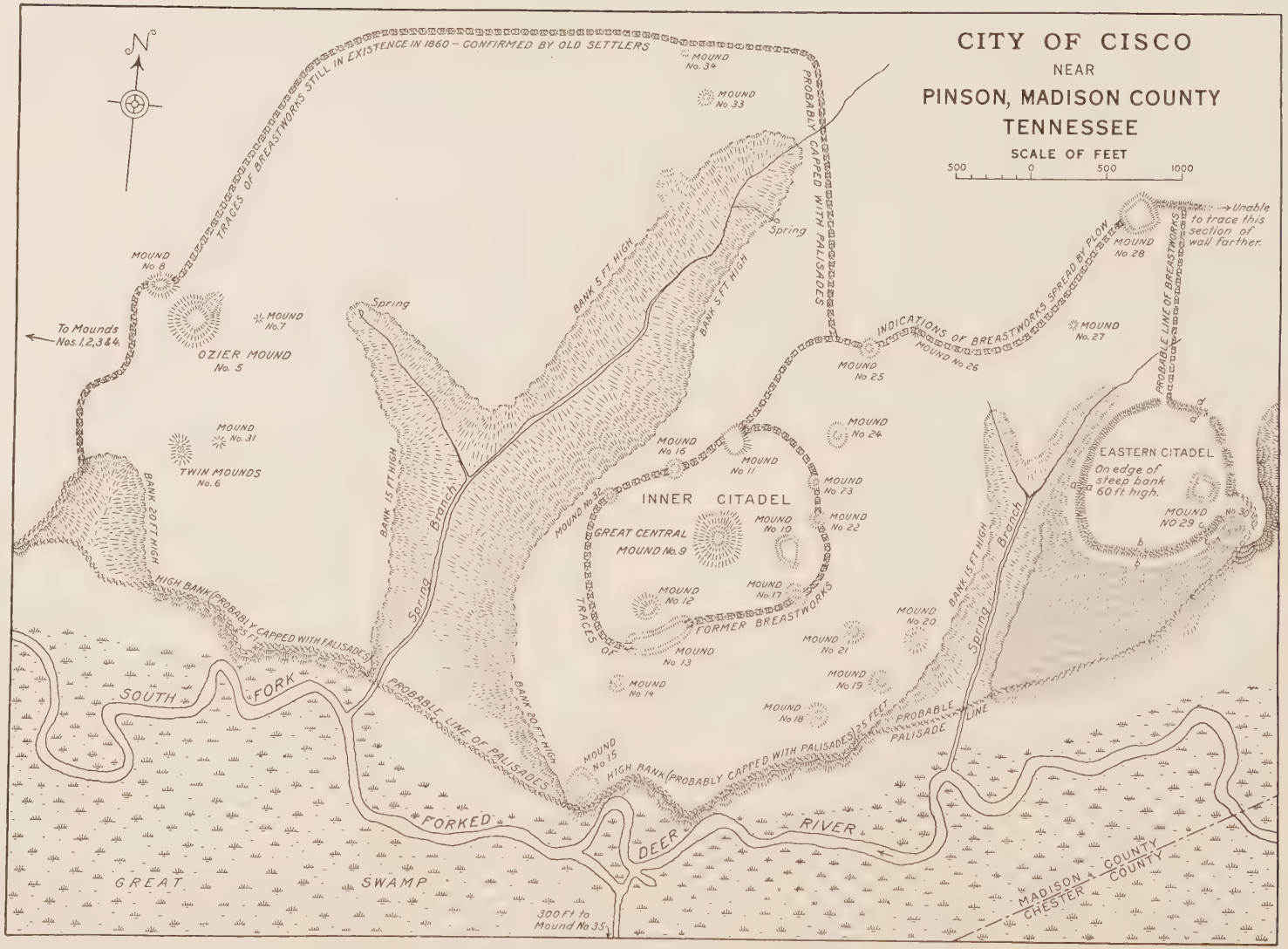
tainly nowhere outside the life of primitive peoples. There is a something more inspiring in this elemental symbology. You, if you are impressed, expect the corn to grow after the invocations of the corn dance, and you expect speed from the runner whose head is crowned with eagle down, and whose thighs are brushed with eagle's wings. It is a language that is near to nature.

The Indian race in the morning, then, and the foolery of the chifonetes in the afternoon, with a single demonstration of pole climbing, formed the ceremonies of the Fiesta of San Geronimo among the Indians. In the chifonetes, you have the example of tribal gift for and appreciation of humour. It is said to be and singularly, the most sacred among the various expressions of these people, and is the one they do not allow photographed. It is likewise said to be a method invented by the tribe to console its members with jollity in case of calamity, such as drought for example. These several, or actually, five men heavily painted in black and white, nude but for the loin cloth to represent the comic spirit, proceed to perform antics of such a nature as to inspire laughter and merriment among their people, and they are certainly grotesquely humourous enough to amuse anyone with a sense of humour. They were certainly both from the comic and the esthetic point of view successful, for it was mastery in expression on both ways, and a fine knowledge of elemental painting was shown, as well as an excellent sense of gesture and interpretation. They have cultivated to a very high degree their own conception of rhythm and of pantomimic gesture, and of bodily grace as well. It is of the latter one may really call them masters.

You will go far to find a better sense of original rhythms than is displayed by the redman. He is unquestionably one of the finest dancers of history, and this can be confirmed at once by the eye. They are all rhythmists of the first order, and it is doubtless this that gives them their own specific poise, their own peculiar calm and gentleness. They are physically co-ordinated and countenance no other energies than their own. They are a pronounced contrast to their Mexican neighbors who, with their cross-ridden religious fanaticism, have tortured themselves out of countenance. You find the Indian face together, you find the Mexican face awry. Something vastly different is happening to these two types of men in the same land under the same sky. It is not easy to get hold of tribal significances for they teach nothing to the stranger, and their language is, for all I can gather, entirely spoken, and the history of the tribe is likewise never written.

It is considered so "white" to admire the redman in some parts of this section of the country, and yet something is surely to be said for his mystical esthetics, if not always for his ethics. He may be said to hold too fiercely to the barbaric notion of these, and his propensity for appropriation without regard to ownership are at least egotistically expressive if not morally inspiring. It is as artist I want to admire the redman for he is a genuine expressor and inventor. He speaks no other tongue than his own among his own people, and keeps his consciousness clear of outer influence mostly. I think of him as the first among the dancers of the world. He knows the beauty of bodily gesture. He takes his place with the acrobats for his conception of muscular melody.

Santa Fe, New Mexico.



Drawn by Paul J. Leverone.

Fig. 1. Map of the City of Cisco.

RECENT ARCHAEOLOGICAL DISCOVERIES IN TENNESSEE

By WILLIAM EDWARD MYER

Author of "Remains of Primitive Man in Cumberland Valley, Tenn."

RECENT archaeological discoveries made by the author in Tennessee show that state to have within its borders some of the most important and interesting remains left by stone age man in the United States. Very little has hitherto been known about some of these great ruins. Amongst these great and almost unknown remains may be cited the ruins of the city of Cisco, the Great Mound Group on Harpeth River, and the fortress at the junction of Harpeth and Cumberland Rivers.

City of Cisco

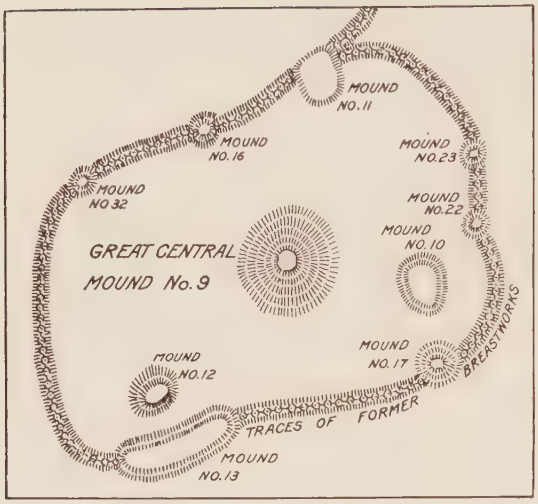
It is hard to realize that in the State of Tennessee ruins of a great ancient walled city with outer defenses measuring fully six miles in length, with elaborate outer and inner citadels, with 35 mounds of various sizes, should have remained almost unknown beyond the bare fact that near the little railroad station of Pinson, in Madison County, there were some mounds and inclosures.

The author visited this site in 1916. He found in the thickets and swamps and woodlands along the waters of the south fork of Forked Deer River, in Madison and Chester Counties, the remains of an ancient fortified city together with its outlying towns and settlements. This ancient city and its adjoining towns were so close together that doubtless their cultivated fields and small isolated truck patches formed a more or less continuous cultivated site for a distance of about 12 miles.

The remains of the city of Cisco, as they appear today, are shown on the map (fig. No. 1).

This map is from a careful survey made by the author's expedition. This great city extends along the high banks (locally called bluffs) of the Forked Deer River for a distance of 2½ miles. It was probably defended on the river side by a continuous line of wooden palisades along the edge of the high banks. Further protection on this side was given by the river itself, and also by the great swamp extending the full length of the town on the opposite shore of the river. On the land side there was a long line of earthen walls surmounted by wooden palisades. The total length of the outer defenses was a little over 6 miles. The walls of the inner citadel and the other inner defenses add five-sixths of a mile to this total. The dotted lines on the map show where some of the earthen embankments have been destroyed in recent years by cultivation; but we were fortunate in finding several old inhabitants who remembered their exact location and appearance. In the undisturbed woodlands and thickets the original earthen embankments still remain. Of course all traces of the wooden palisades have long since disappeared.

There are now 35 mounds in this city. These range from very low rises, not over 1 foot in height, to the great mound in the inner citadel. This great mound is 73 feet high; its base 300 feet x 370 feet; and its flat summit 38 feet x 60 feet. It contains 92,300 cubic



DETAIL OF INNER CITADEL

Fig. 2. City of Cisco, Citadel.

yards of earth. This mound is about sixth in size among the great mounds of the United States. It commands a view of the surrounding country for many miles in every direction. At one time it probably had the great house of the king upon its summit. Several of these mounds are very large, being from one-third to one-fourth the size of this great central mound. These large mounds were placed at strategic points in every quarter of the city.

Mound No. 30, just beyond the line of walls of the eastern citadel, stands on the summit of the high river bank. It was probably devoted to sacred ceremonial purposes and supported some sacred building. It appears to somewhat resemble a bird with outstretched wings. The thunder bird and other sacred birds played an important rôle in the religious rites of stone-age man in the Southern states.

There is abundant evidence showing this city was the central city and capital of a large region; that it had a population of several thousand, and was built by some conqueror-king. This great fortified city was occupied only for a short time after it was completed. Then the conqueror-king was overthrown. His stronghold was taken and destroyed. It was left desolate and never afterward occupied.

Limited space prevents giving more details of these great ruins.

Ancient Trails Leading from City of Cisco

The author discovered an ancient trail which led from the city of Cisco in a southwestern direction to another old fortified town near Bolivar, Tenn. At the Bolivar town the old trail forked. One prong led westward to the old Indian crossing of the Mississippi River at the mouth of Wolf River, in what is now Memphis. From this Memphis crossing the trail led to the ancient Indian towns in Arkansas and the Southwest. The other prong led from Bolivar town to the southward, along Pontotoc Ridge, to the ancient Indian town of Pontotoc, near the present white town of Pontotoc, Miss. From Pontotoc it led via Columbus, Miss., down the higher lands west of the Tombigbee River, to the ancient towns around Mobile Bay. From the city of Cisco another trail led eastward, crossing the Tennessee River near the present Johnsonville, from thence on to the Great Mound Group on Harpeth River at mouth of Dog Creek, thence to the ancient towns around Nashville.

Fortress at Mouth of Harpeth River

In February, 1920, the author discovered a hitherto unknown Indian citadel on the summit of the tall, long, narrow, double-faced precipitous bluff on the point of land between the Harpeth and Cumberland Rivers at their junction in Cheatham County, Tenn. This natural fortress extended along the summit of this thin double-

Fig. 3. Sketch of Great Central Mound. Height 72 feet. Base 370 ft. x 300 ft. Top 60 ft. x 50 ft.

faced bluff or promontory for a distance of 3,110 feet. The Harpeth River side of the fortress is shown in fig. 4. The Cumberland side is very similar. This fortress-bluff is from 150 to 200 feet in height. It can be scaled at very few places, and at these places only with great difficulty. These few places of possible ascent were protected by breastworks and palisades. The narrow ridge-like summit is only from 20 feet to 170 feet in width. It bears several mounds and embankments at strategic points along its summit. For man armed only with stone-age weapons, this fortress was nearly impregnable. It was the fortress and central place of refuge for a line of scattered settlements which extended some six miles up and five miles down the Cumberland River and four miles up the Harpeth. At the first sign of danger all the inhabitants of these unprotected settlements could be safe within the fortress in less than an hour.

The people who occupied this fortress and the nearby settlements are shrouded in mystery. Their pottery, pipes, and some of their other relics are somewhat different from any found in Tennessee or elsewhere in the United States. The working out of their lost story offers a most tempting field to archaeologists.

Great Mound Group at Mouth of Dog Creek

So far as the author has been able to learn, fig. 5 is the first photograph ever published of the Great Mound on Harpeth River at the mouth of Dog Creek, in Cheatham County, Tenn. This enormous earthwork belongs to the Great Mound Group which covers portions of two bends of the Harpeth River. These two bends are about two miles apart. The remains of an ancient roadway connecting them can still be plainly seen.

This Great Mound with its wide earthen platforms caps a tall hill in

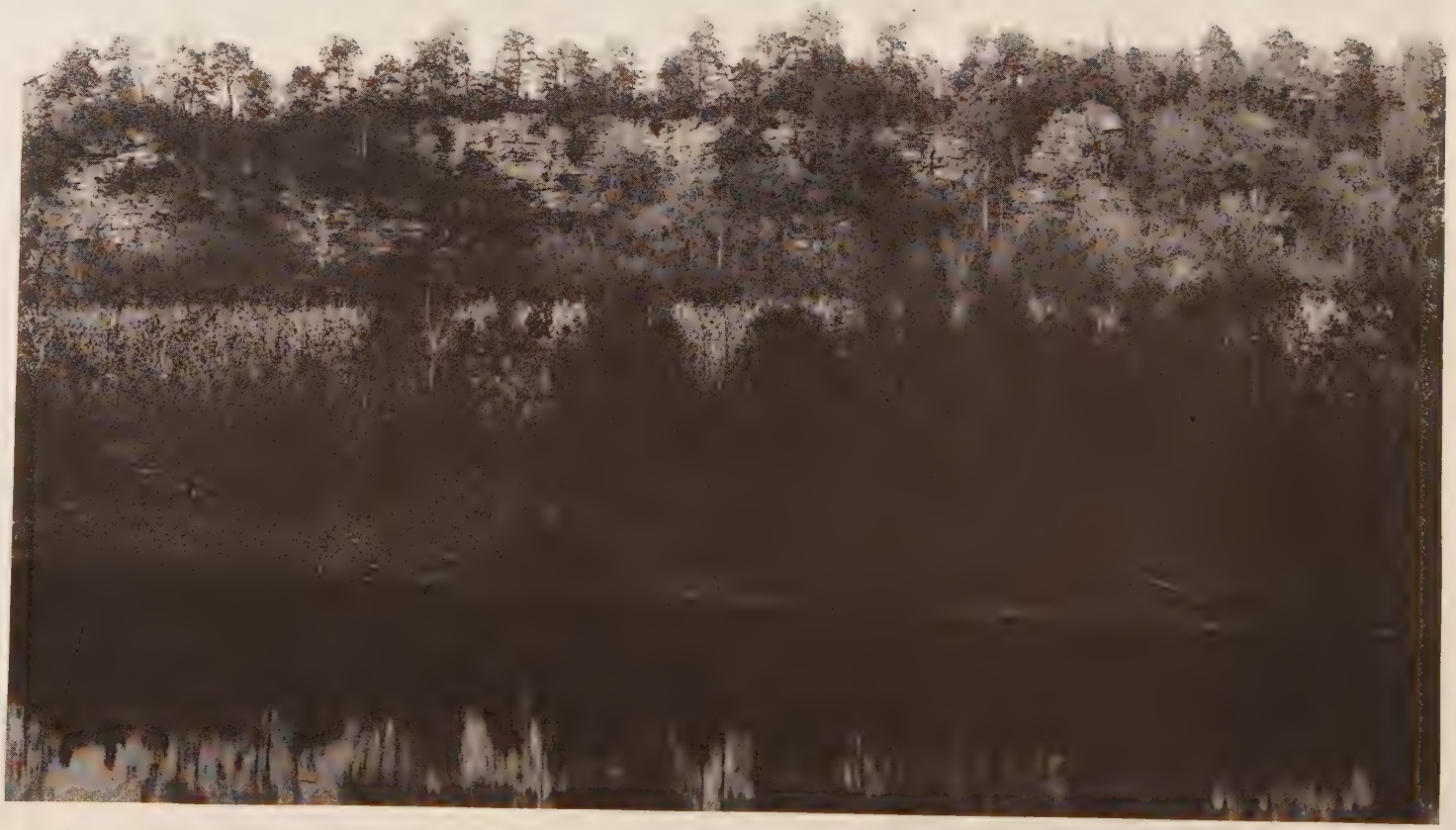


Fig. 4. A photograph showing only one-sixth of the Harpeth River side of fortress at junction of Harpeth and Cumberland Rivers, Cheatham Co., Tennessee.

Fig. 5. Great Mound on Harpeth River at mouth of Dog Creek, Cheatham Co., Tennessee.

the upstream end of this widely extended town. A portion of the hill has been artificially shaped in order to bring out in greater prominence the earthworks and former buildings on its summit. This artificially shaped portion of the hill does not appear in the photograph. Surrounding these earthworks on the summit are the ruins of a large edifice and a reservoir and a number of other important remains.

The downstream portion of this important town lies in the river bend known locally as Mound Bottom, because the entire 50 acres of this bend of the river is taken up with large mounds. Some of these are shown in fig. 6.

These photographs can not bring out the real magnitude of these mounds. Recalling that this small photograph shows a considerable portion of the 50-acre bend will aid the reader in grasping the true size of these mounds. It is well known to photographers that no photograph will bring out the true appearance of great earthworks. This is due largely to "the undue exaggeration of the foreground."

Nos. 2, 4, 5 and 6 are large mounds. No. 1 is a wide artificial earthen platform adjoining Mound No. 2. No. 7 is a stone-slab-coffin cemetery. This Mound Bottom portion of the old town was formerly surrounded by an ancient palisaded wall with towers every 40 paces. These palisaded walls probably closely resembled those of old Chaskepi. There is strong evidence of long-continued occupation by a large population.

Fig. 6. Mound Bottom, Harpeth River, two miles below mouth of Dog Creek, Cheatham Co., Tennessee.

Gordon Site

In 1920 the author explored, under the auspices of the Bureau of American Ethnology, the ruins of the ancient buried towns on the Gordontown Site and at the Fewkes Group, near Nashville. The result of this exploration is given here by their permission.

The Gordon Site is one mile northeast of Brentwood, in Davidson County, in a woodland which has never been disturbed by the plow. Its partial excavation brought to light some new and interesting details of the every day life of ancient stone-age man. Traces of 87 house circles and faint indications of several more could be made out. This was a fortified town. It covered 11 acres and was surrounded by an earthen embankment which at one time supported a wall of wooden palisades, equipped with towers every 55 feet. A map of this site is reproduced in fig. 7.

The ancient Gordon inhabitants for some unknown reason had deserted the village and the site had never afterward been occupied or disturbed. The deserted structures had gradually fallen down and, during the long centuries, the remains had been slowly covered with a layer of from 14 to 18 inches of black loam.

In some of these circles portions of beautiful, smooth, hard-packed, glossy black floors were found. In the centers were the ancient fire-bowls, yet filled with the ashes of the last fires kindled in these homes before their owners left them forever. Near these fire-bowls often could be seen the metates, mullers, and other household utensils, just as left the last time used. Underneath the floors were the stone-slab graves of their little children.

A level open space was found near the center of the town, and on the eastern side of this plaza was a low flat-topped mound which had originally supported some important building. Adjoining this mound on the west is an earth circle which probably outlines the walls of the town house or sacred ceremonial house. At the center of this sacred structure, on the unique black, glossy floor, an ancient altar was found. It was still filled with the pure white ashes of what had once been the sacred fire. These pure ashes contained no bones or other signs of domestic cooking. This altar was carefully preserved and is now in the Bureau of American Ethnology. The Gordon site is of much interest, because here we have the ancient Indian village floors just as the original inhabitants left them.

Fig. 7. Map of Gordontown.

A fine example of the potter's art of prehistoric man in Tennessee is shown in fig. 8. This was found in the stone-slab grave of a little child buried just beneath the floor of House Circle No. 23. The little body had been wrapped in cane matting. To the right of the head this fine burial vase had been placed. This vase was made of clay mingled with finely powdered mussel shell. It had been polished with great care and then well burned. The vase is 7 inches in height. The bottom of the little coffin had been covered with a mosaic of pottery fragments neatly fitted together. Many graves of this character were found just beneath the floors of the dwellings on the Gordon site.

Fewkes Group

The Fewkes Group is at Boiling Spring Academy, in Williamson County, Tenn. It consists of five mounds, four of which surround a level plaza or town square. There are traces of about a dozen house circles, and a small remnant of what was at one time a considerable stone-slab cemetery. At least two different peoples have lived on this site. The earlier people built the mounds and most of the other remains. At a later date a small band of some other tribe located here. The earlier people buried their dead either in hexagonal or almost circular stone-slab graves, the bodies closely flexed. The later band used rectangular stone graves, with the body extended full length, on its back.

A town house or sacred ceremonial house had been built on the mound on the west side of the town square. This sacred building had one of those rare, beautiful floors, made of clay, smoothed, then hardened by fire, and finally covered with a coating which is yet black and glossy. In the center of the building, on this beautiful floor, an altar was found. It somewhat resembles that shown in fig. 10.

House Circle No. 6 was one of a group of buildings whose functions were doubtless closely interwoven and of a sacred character. No. 6 contained in its center the altar or fire-bowl shown in fig. 10.

House Circle No. 17 (shown in fig. 11) was a typical dwelling. It was evidently the home of a neat housekeeper; for when she left it, never to return, she swept the floor and left it clean. When, after untold centuries, the author uncovered her floor, it was not littered with broken animal bones, pottery fragments or other evidences of untidiness. This floor was of hard-packed clay, and a fire-bowl ("A") for domestic cooking was dug in the center. At this fire-bowl a puzzling burial was unearthed. A child, about 8 years of age, was buried by the side of the upright

Fig. 8. Mortuary vessel from child's grave in Gordon own.

Fig. 9. Fine ceremonial flint dagger from Circle No. 3, Gordontown.

stone slab ("B"), with its head resting just within the extreme edge of the fire-bowl, whose rim had been cut away at this point to admit the top of the child's head. The fire-bowl was found still filled with ashes; but although the ashes covered the top of the child's head, the head showed not the faintest trace of the action of fire. It appears probable that at the death of this child its little body was buried with the head resting just within the edge of the fire-bowl used by the mother for domestic purposes. The home was then abandoned. No signs of any later domestic fires were found. Two graves of infants were also found in the floor of this house. One is shown at "C."

The exploration of Gordon and Fewkes sites revealed the interesting fact that they were probably deserted before the arrival of the buffalo in Middle Tennessee.

Old Stone Fort near Manchester, Tenn.

It has long been well known that there were the remains of a fortified town, covering 40 acres, between the

Fig. 10. Altar or Fire-bowl from House Circle No. 6.

two prongs of Duck River at its falls near Manchester. The construction of this fort was somewhat different from the others in the South. Its walls of mingled stone and earth, its elaborate and intricate inner defenses surrounding its only gateway, all took hold on the imagination of the student of the past. No one knew its history. No known tribe appeared to have any tradition concerning it.

In 1919 the author found a copy of the old "Franquelin's 1684 Map of La Salle's Discoveries, Paris, 1684," in the Library of Congress. This map furnished the first faint clue as to who built this ancient fort. With this faint clue, long, patient research finally established that the Old Stone Fort was at one time inhabited by the ancient Yuchis. The Yuchis later lived on the Savannah River and elsewhere in South Carolina and Georgia. They afterward took active part in many of the stirring events of early historic Indian warfare in the South. A small remnant of these brave people now live in the northwest portion of the Creek Nation, in Oklahoma.

The author's further researches showed the Old Stone Fort to be the famous Cisca which De Soto tried in vain to reach in 1540. He also worked out many other interesting details of the history of this famous ruin.

The Life of Prehistoric Man in Tennessee

During the untold centuries since man first came into what is now Tennessee many quite different savage peoples have lived at various times in this region. They toiled and worshiped,

Figure No. 11—Floor of House Circle No. 17.
"A" is a fire-bowl. Body of child was found by side of upright stone "B." Top edges of upright stone-slab sides of another child's coffin in corner at "C."

loved and fought, even as do we, the latest comers. Then in the course of long years came fate in shape of enemy or pestilence or omens, and they were driven out. Their wigwams decayed and great forests slowly grew on the sites of their villages, which became buried beneath the black loam wherewith nature so kindly and tenderly covers the scars upon her breast—scars which mark the struggles and heartaches of her children. Time comes when all knowledge of these former inhabitants has been long lost. Comes some archaeologist with pick and spade and uncovers these ruins of buried homes, and from the few relics found therein, with infinite patience and labor, slowly works out the broad outlines of the life of these vanished peoples. These relics, in the hands of those who have given to them years of toil and study, become keys to the gateways of a great unexplored region, lying silent and deserted, just beyond the present ken of men. The archaeologist enters the gateway his researches have unlocked. He wanders alone adown the vast silences of the dead centuries, feeling the exquisite thrill which comes only to those who tread where man before has never trod. Some such thrill has come in a small way to the author, who has devoted a large portion of his life to an endeavor to solve the problem of prehistoric man in Tennessee.

Washington, D. C.

THE PIASA PETROGLYPH: THE DEVOURER FROM THE BLUFFS

By Tom English

THE mighty Mississippi, Father of Waters, has been unkindly slighted since the old steamboat days. The river that received into its bosom the trunk-hewn coffin of De Soto, and on whose silty current were bourne the canoes of Marquette and the early French explorers, receives from the traveler little more than a passing glance as his train roars over one of the great bridges. Even the glorious race of the Robert E. Lee and the City of Natchez is forgotten on the wharves where Mark Twain used to dock. Yet on the lovely reaches of the upper river still linger tales of bygone wonders which fired the Jesuit with an holy zeal.

On the right bank as you ascend the river, between the steep old town of Alton, where Lovejoy was shot by the mob, and the mouth of the Illinois, extend the bluffs in a gently undulating line. They rise from a narrow shelf to a height of some hundred feet, half clothed in vegetation, with precipitous faces of creamy limestone above the verdure. On the Missouri shore are low bottom-lands, reaching back several miles to a parallel line of bluffs.

Near the village of Elsah, the bluffs have been carved by the elements into fantastic forms of pillar and bastion, so that on old French maps they are marked "Ruined Castles." Near here a narrow ravine cracks the rock wall, through which flows a little creek. This is Piasa Creek, whose name signifies in the language of the Illini Indians "The Bird that Devours Men." On a smooth face of the bluff at Alton, eighty feet above the river, in ancient times was carved and painted the representation of a dragon-like monster with outspread wings. This was the Piasa petroglyph, the highest attainment of the early Indian pictorial art.

In June, 1673, Joliet the adventurous trader and Marquette the devoted priest saw it as they passed down on their voyage of exploration. They had been warned by the Indians of the Lakes that "the Great River is very dangerous . . . ; that it was full of frightful monsters who swallowed up men and canoes together; that there is even a demon there who can be heard from afar, who stops the passage and engulfs all who dare approach." Nevertheless they were startled by this evidence of the devil's dominion in the wilderness. Pere Marquette's account is as follows:

"As we coasted along rocks frightful for their height and length, we saw two monsters painted on one of these rocks, which startled us at first, and on which the boldest Indian dare not gaze long. They are as large as a calf, with horns on the head like a deer, a fearful look, red eyes, bearded like a tiger, the face somewhat like a man's, the body covered with scales, and the tail so long that it twice makes a turn of the body, passing over the head and down between the legs, and ending at last in a fish's tail. Green, red, and a kind of black, are the colors employed. On the whole, the two monsters are so well painted, that we could not believe any Indian to have been the designer, as good painters in France

The Piasa (the Russell Version).

would find it hard to do as well; besides this, they are so high up on the rock that it is hard to get conveniently at them to paint them."

Marquette refers to a drawing he made of them, but it is lost. St. Cosme writes that when he saw them in 1699 they were almost effaced. "Douay and Joutel also apeak of them, the former bitterly hostile to his Jesuit contemporaries, charging Marquette with exaggeration in his account of them. Joutel could see nothing terrifying in their appearance; but he says that his Indians made sacrifices to them as they passed."

The last statement is most significant. It is asserted that "an Indian never passed the spot in his canoe without firing his gun at the figure of the Piasa." The pock-marked appearance of the face of the cliff, and the quantities of lead at its base, corroborated the statement.

The best-known version of the Piasa legend was written in 1836 by John Russell of Bluffdale. His son, S. H. Russell, while a student in Shurtleff College, at Upper Alton, (1849), made observations which I believe are the most accurate recorded. From an article by him, published in 1883, is taken the following circumstantial account:

"My recollection of it is of a picture cut into the surface of the rock to the depth of half an inch or more—had originally been painted red, black and blue, as portions of these colors were still adhering to the rock. The bird, or beast, . . . had the head of a bear, directly facing the river below; the mouth was open, plainly showing large disproportioned teeth. On its head were the unmistakable horns of an elk.

The Piasa (the McAdams Version).

The upper portions of the horns were red, while the lower portions, together with the head, were black. The body was that of a fish confusedly colored with all three colors; it also showed distinctly the marks of scales, resembling in their order those of a fish. The wings were expanded to the right and left of the face, as if in the act of taking flight, extending probably from sixteen to eighteen feet from point to point. The legs were those of a bear, armed with the talons of an eagle. The tail was wrapped three times around the body, twice back of the wings, once forward, terminating in the shape of a spear head. The most prominent features were the wings and head, the latter being covered by a long beard or mane. There was also one other remarkable fact, which has been noticed by all who were familiar with this picture, that at times it could be seen more distinctly than at others. When the atmosphere was damper than usual, the colors came out plainer; hence it may be inferred that as Marquette passed in June (one of our dryest months) the wings were not visible."

William McAdams, an Illinois archaeologist of note, who in 1887 published a book entitled "Records of Ancient Races in the Mississippi Valley," attempted to exhaust local tradition on the subject of the pictograph. Marquette speaks of two monsters painted on the cliff, whereas later observers mention but one. McAdams was unable to find any old settler who had seen more than one, but in his researches he uncovered an old German publication, entitled "The Valley of the Mississippi — Illustrated," published about 1839 in Düsseldorf. One

of the plates gives a view of the bluff at Alton with the figure of the Piasa on its face. "The account in the German work says the pictograph was growing dim and showed evidence of great age." The figure in McAdams' book is a rather fantastic version of one of the monsters, showing to the left a second face. And just behind the dim outlines of the second face there is a gash in the rock, as though a part of the bluff's face had fallen. Thus the other monster may have been destroyed before the settlement of the Illinois country.

What seems strange is that this drawing was made "some three or four years after John Russell wrote his story of the Tradition of the Piasa" (1836). We know that Russell was a zealous antiquarian, and had he seen this second face it is probable that his son, who shared his enthusiasm, would have mentioned the fact. The evidence of the writings of both father and son, however, is to the contrary. Certainly it had altogether disappeared by 1849. The survivor had become very faint, but was still visible in 1856 or 57, when the bluff was quarried back by lime-makers, and the picture destroyed.

The drawings of the Piasa we possess differ mainly in the details of horns and tail. The two drawings usually figured were made from descriptions, by artists who had never seen their subject, and the better of them is not altogether right. I believe that the painting made under the direction of S. H. Russell was most faithful to the pictograph. From this were reproduced the engravings in which appear the elk horns, and the spear-head tail wrapped three times around the body. The variations of deer horns, and encircling tail ending like a fish's, we owe to McAdams. It may well be that the similarities between the two are of more importance than the differences. Certainly there are irreconcilable discrepancies of detail between the various descriptions.

Just as authorities do not agree on the details of its appearance, neither do they agree on the size of the petroglyph. It was surely considerably larger than a calf, but one can hardly believe that it was "thirty feet in length by twelve feet in height," the dimensions given in a curious monograph by P. A. Armstrong, entitled "The Piasa, or, The Devil Among the Indians."

The tradition of the Piasa exists in two forms. The Recollect Louis Hennepin mentions one of them in "A New Discovery of a Vast Country in America," in his notice of Marquette's monsters: "There is a common Tradition amongst that People, That a great number of Miamis were drown'd in that Place, being pursu'd by the Savages of Matsigamea; and since that time, the Savages going by the Rock, use to smoak, and offer Tobacco to those Beasts, to appease, as they say, the Manitou."

The legend relates that in the days when the Illini confederacy held all the territory between the Mississippi and Wabash Rivers, a deadly feud sprang up between the powerful tribes, the Mestchegamies (or Michegamies) and the Miamis. The town of the former was near the mouth of the Illinois River, while the latter's was on the site of the present city of Alton. Between the two was a narrow ravine, in which had dwelt for a long time two huge and hideous monsters, compounded of beast, bird, and serpent, which, as they had never molested the Indians, were left undisturbed by them. The hatred of the Miamis for the Mestchegamies

increasing daily, the former decided to surprise and annihilate their enemies. The Mestchegamies at the same time formed a similar plan, and the warriors of both tribes setting out one morning to attack the other's town before daybreak, they met in the ravine of the Piasas. When the foes were brought face to face in the narrow pass, they at once fell to deadly combat. While the equal fight was raging, a frightful noise was heard overhead, and looking up they beheld the Piasas flying down the gorge. With horrid roars and screams they swooped down over the combatants, and each seizing a Miami chieftain in its talons, they flew off. The Mestchegamies, assured that the devourer birds were sent to their aid by the Great Spirit, fell with augmented bravery upon the dismayed Miamis. They drove great numbers into the river, where they were drowned, and massacred many others, the wretched survivors fleeing beyond the Wabash.

Many years later, when the Miamis had settled their score with the Mestchegamies, at Starved Rock on the Illinois, they returned to the bluffs, and found representations of the Piasas engraved on their face. Since they could not reach the pictures to erase them, they discharged their arrows at them whenever they passed by in their canoes.

The Illini tradition is altogether different from that of the Miamis. It relates that at a time when the greatness of the Illini justified their name, which means "real men," a winged monster came to make its lair on the bluffs, of fearful appearance, and so large and powerful that it could seize and carry off in its talons a full-grown deer. But having by some mischance once tasted human flesh, it preyed thereafter on the people, so that villages were depopulated, and no one was ever free from fear. At length, Ouatogo, a great and good chief of the Illini, sought by fasting and prayer to learn from the Great Spirit how the monster might be destroyed. On the thirtieth night, the Great Spirit appeared to Ouatogo in his solitude, and directed him to select from the tribe the noblest warrior. He should be placed on a height above the river as a sacrifice to the Piasa, while twenty braves concealed in ambush should be ready to send their arrows into the monster's body as it descended upon its prey. Ouatogo gave thanks that a plan of deliverance was granted his people, and offered himself as the victim. He stationed the braves about the base of the cliff, and himself stood on the height. He had not long to wait before the devourer saw him and circled down from the clouds. Ouatogo awaited his fate with calm brow, chanting his death song. Just as the Piasa would have grasped him in its claws, poisoned arrows from twenty bowstrings pierced its breast, and with a wild scream it fell dead. When his warriors reached the summit they found their chief unhurt. Then was there rejoicing throughout all the villages of the Illini, and in memory of their deliverance the figure of the Piasa was painted on the face of the bluff where it was slain.

What did the Piasa mean? The solution has been sought for in the bone-caverns in the bluffs, where the monster was said to devour its victims. The fantastic theory has been proposed that it was the actual likeness of one of the strange saurians whose fossil remains have been exhumed in the West. But I think we may quite simply and surely explain it as a version of the thunder-bird legend, found among all the tribes of Algonkin stock, and widely distrib-

uted among the North American Indians. According to this myth, the thunderstorm is caused by a great bird darkening the sky with its shadow. The thunder is the sound of the flapping of its wings, the lightning flash is the winking of its red eyes, and the lightning stroke the grasp of its talons. Therefore the Piasa's spreading wings, red eyes, and eagle-claws. The lightning is further represented by the horns, tail, and the serrations of its neck and wings. Undoubtedly the legends may be roughly worked out on the basis of this explanation, and thus this masterpiece of aboriginal art may come to possess a real significance.

Princeton University.

THE FLINT MAKER

By HARTLEY B. ALEXANDER

For him the dump stone is no blind thing—
Jasper and agate and flint,—
But a jewel and a tool and a mined thing
Cast in the Earth-Maker's mint.

He has uttered a prayer at the quarry;
He has smoked him a smoke for its soul;
A spell he has chanted before he
Has pried out his gem from the bole,—
A spell he has chanted, and chanting
How Earth with God's thunderbolts quaked
When of old the keen lightnings fell slanting,
He has chipped and has splintered and flaked
His mallets and arrows and lances,
His knives and his scrapers of stone,
His tools, his adornments, his fancies,
From the rocks by the Ancient One sown.

For to him the dump stone is no blind thing—
Jasper and agate and flint,—
But a hammered and wrought and refined thing,
Living within, and the glint
Of the crystals he turns in his quarry,
Of the gems that he pries from the bole,
Of the flint-sparks that fly from the core he
Knows are the fires of God's soul.

University of Nebraska, Lincoln.

NOTES FROM THE GALLERIES

Chicago

Old Spanish Rugs at the Art Institute

An "anonymous friend" who recently dismantled his villa in Southern Spain, has sent to the Art Institute of Chicago his priceless collections of European and Oriental art, and here they will be on display for a year or more. The exceedingly difficult task of arranging together harmoniously objects so diverse as a Manet painting and a T'ang bronze has been well accomplished. There is no effect of incongruity in the three galleries occupied by the exhibition, but rather a subtle relationship which emphasizes the interplay of influence between Occident and Orient.

In the central gallery where the room has been furnished with chairs and couches of the Italian Renaissance, and the walls have been hung with Beauvais and Brussels tapestries, the floor is adorned with the most beautiful and important collection of Spanish rugs in the country. Mr. O. S. Berberyan of New York, an authority in the matter of antique rugs, is responsible for the statement that no such assembly of rugs could have been put on display by the South Kensington Museum, the Victoria and Albert Museum and the Hispanic Society of America combined. Mr. Berberyan is preparing for the owner of the collection, a catalog de luxe, which when it is finished will be an invaluable text-book for collector and connoisseur, and which has furnished much of the data for this article.

The fact that this collection in Chicago contains two of the oldest existing specimens of Spanish rugs leads us to review briefly the history of rug-making in Spain.

From a very early date rugs were manufactured in Spain by Moorish weavers, and their quaint designs, mingled with a native Gothic tradition, formed the foundation for Spanish rug-weaving. There were, however, other influences which were almost contemporary, and with which one must reckon if one is to analyze these alluring fabrics.

Taking as the first source of design the native tradition, we must count as a second the Turkish and Caucasian influences. With the return of the earliest traders from Asia Minor, tales of wealth and luxury fired the imagination of Spanish merchants, and soon the trade routes along the Mediterranean, neglected since the fall of Phoenicia's prowess, began to be furrowed by the keels of Spanish ships. Textiles and carpets brought into Spain from the Caucasus and from the Turkish looms came as a revelation to the western weavers, and furnished them with a new source of design.

The third source of influence was supplied when a trade route was discovered around the Cape of Good Hope, to the Persian Gulf. Now from Ispahan and Herat the most gorgeous products of the Persian looms began to arrive in Spanish ports. Persia was already far advanced in the textile arts. She had developed a classic tradition based on many centuries of more primitive design. The subtle, conventionalized beauty of her patterns slowly mingled with the archaic simplicity of the Spanish imagination.

The two oldest rugs in this collection, and in fact two of the very oldest in the history of Spanish rug-making, were made in 1450 in the convent of Santa Clara in Palencia, Spain. They are companion-pieces to three larger rugs that bear the coat of arms of Admiral Enriquez, grandfather of King Ferdinand of Castile. They were exhibited at London in 1895 under the patronage of the Queen Regent of Spain, and again at an exhibition of Mohammedan art in Munich in 1910.

These two rugs are alike in general appearance but quite different in detail. The outer border of each bears a design in Kufic lettering, but while in No. 1 it is well defined, it is highly conventionalized in No. 2. As a border design for rugs, Kufic lettering is known all over the Near East. We find it first in the rugs of the Museum at Ala-ed-din in Koniah, which are said to date from the 13th century. It figures widely in Persian miniatures of the fourteenth century, and in the borders of early Turkish rugs. The letters originally spelled the words "Allah-il-Allah" but they have been changed somewhat for the sake of the pattern. This border design from the Near East has been developed in a typically Spanish way with little palmetto flowers crowning the shafts of the letters, and conventionalized peacocks, panthers, and rosaces filling in the spaces between. There is also a motive which may be a weaver's comb and which may be a five-fingered hand warding off evil spirits In the border of rug No. 2 is a very interesting object,

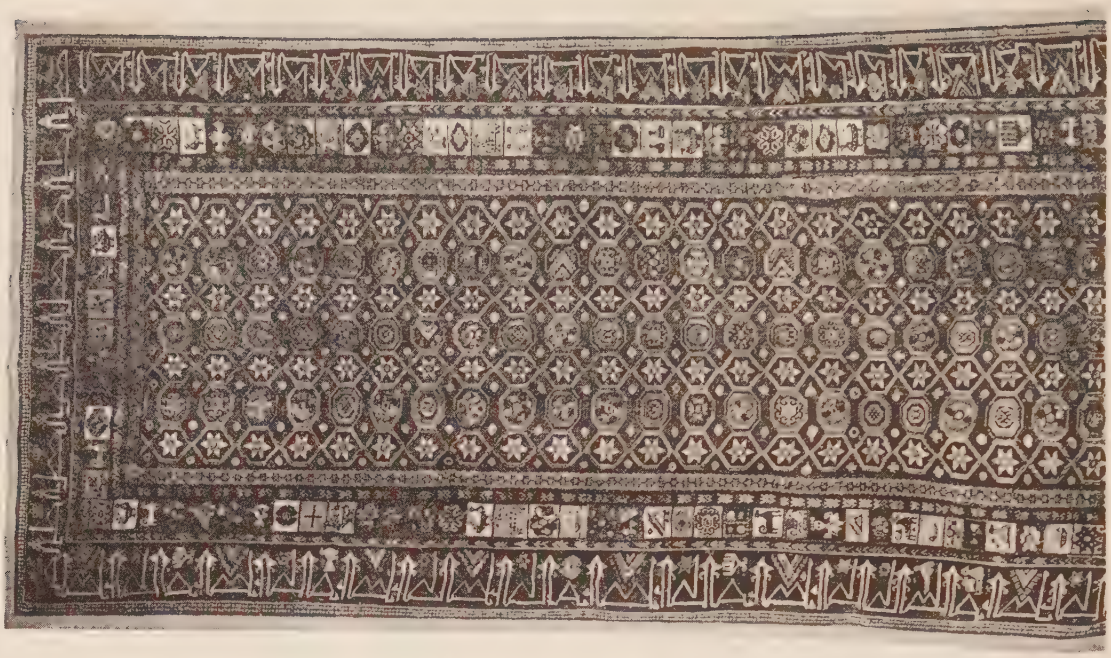


Fig. 1. A rug made in 1450 for Admiral Enriquez, grandfather to King Ferdinand.

Fig. 2 Companion piece to rug No. 1. The Kufic lettering of the border is more highly conventionalized than in its mate.

a tree with four horizontal branches, bearing the Spanish peony. This is the predominant motive in the oldest Spanish rug in existence, now in the Museum of Berlin.

Of the various types of old Hispano-Moresque rugs, only three have survived, the "tree-and-palmetto-flower" type, the octagonal star type, and the all-over tile pattern. Rug No. 1 is of the tile type with an all-over pattern of hexagonal and octagonal tiles set together with a dumb-bell shaped motive between. Within each of the hexagonal tiles is the six-pointed star, but the eight-sided tiles have any number of quaint and amusing devices. Apparently they were chosen as fancy dictated for they have no geometrical arrangement. They may, however, have been endowed with a cabalistic significance. Between the main border of the rug and its inner field is an inner border divided into squares. In each square is an ornamental motif and of these the quaint rectangular animals are the most interesting. In their naïveté of design these animals strongly resemble those found on Caucasian rugs of a later date. There is also an ancient Oriental motif, two animals facing each other in profile. An eagle with two spread wings is borrowed from Byzantine fabrics. A cross with splayed ends brings in the Christian element and is suggestive of the treatment of the cross motif in the military orders of Spain.

In both these oldest rugs the colors are pale tan and red, colors which we find in all Hispano-Moresque rugs and which are now the national colors of Spain.

Rug No. 2 has as its main ground a tile pattern which consists of octagons connected by lozenge shaped bars. The alternating diagonal rows of octagons contain the six-pointed star, which was a cabalistic symbol in both Mohammedan and classic art, and the rows between the stars contain many diverse motifs, the most interesting of which is a female figure representing a dancer. There is also a design consisting of a center column with two rampant lions, the heraldic emblem of Christian Spain. This design is several times repeated.

Even if the evidence of the designs and details were lacking there could be no doubt of the early Spanish origin of these rugs. Their color, their manner of knotting, and their elongated shape are all conclusive proof.

Technically, Spanish carpets are divided into three groups, the knotted or pile carpet, the hooked or looped carpet made by drawing silk or wool yarns with a hook through a canvas background, and embroidered carpets, sometimes done in needle-work and sometimes braided as in the Sumak carpets. Some of the most beautiful examples in the present collection are of the needle-work type, made during the sixteenth century. One of these, a magnificent altar-carpet (No. 3), is a companion-piece to a rug in the Victoria and Albert Museum, though in the London specimen the two end borders are missing. This carpet is of a particularly pleasing design. The border has a sober and dignified arrangement, but the central field is filled with all sorts of leaping and running animals. The central medallion is made up of a lobed polygon, two sixteen-pointed stars, an octagon, an octagonal star and a small center rosace, superimposed one upon the other. This idea is borrowed from an old Persian carpet. The famous animal rug in the Boucquoi collection in Vienna, and a fine woolen carpet formerly in the Yerkes collection show almost the same design. Above and below this medallion are huge fleur-de-lis of decidedly Renaissance design, while on either side are many small animals of Spanish-Christian design without Oriental influence. However, to the right and left of the rampant lions below the fleur-de-lis are birds in vaguer colors that are of a very primitive type and Oriental in design.

These naïve and delightful animal and bird motives we find later in all the arts and crafts of Renaissance Spain. In this particular rug the exuberance with which they are sprinkled through the pattern is so overwhelmed by the strong central design of medallion and fleur-de-lis that no effect of crowding is produced. Especially interesting is the border in this rug in which two influences are mingled. The triangular divisions and the vases are adopted from Italian Renaissance brocades while the carnations in the vases are of Turkish textile origin, being found especially in Scutari velvets.

The hooked or looped type of rug is represented in the collection by two silk and wool rugs made near Grenada, and one of coarser weave made in the mountain country and called "Alpujarra." A carpet which comes outside the three classifications is made of linen appliqué. It was purchased near Tarragona and is almost identical with the design of the tracery in the Tarragona Cathedral. The date is embroidered on the reverse side, "ano de 1763." A heraldic carpet of heavy wool embroidery bears the eagle adossé and square shield of Charles V on a rich orange field.

Certain general characteristics distinguish the Spanish rug from the Persian or Turkish product. Among these are the extreme length and narrow width of the early woven specimens, the square shape of the needlework rugs, the similarity in color between the design and the central field and the fact that each rug seems to have been designed for some especial purpose: church, monastery, palace or public building. The arrangement of this particular exhibition is made all the more interesting by the presence of Persian examples, rugs and hangings made in Utrecht, Holland, under Spanish dominion, and beautiful carpets of arabesque patterns from Asia Minor.

JESSICA NELSON NORTH.

SUMMER EXHIBITIONS

Lyme, Connecticut

One of the oldest and most important of the summer exhibitions in the vicinity of New York is that at Lyme, Connecticut, whose Art Association is this year holding its twenty-first annual exhibition. The new home of the Association, designed by Charles A. Platt, was opened last summer. It is situated on the Boston Post Road, so that thousands of visitors will stop during the course of the exhibition, from August 5 to September 5.

Guy Wiggins, whose progress during the last few years keeps us watching him with a great deal of interest, is represented by "Pleasant Valley," which depicts the undulating floor and wall of hills with firmness and strength. Bruce Crane sends a lyrical Autumn subject with soft gray tones prevailing, while Ernest Albert glorifies the Winter season in one of his well-known snow pictures. Will Foote's Bermuda scene is full of color and fine in spirit. Edward Rook has sent a beautifully painted still life of grapes which is rich and deep in tone.

Wilson Irvine, whose Connecticut landscapes were shown in New York last winter, is represented by a large and finely painted hill subject with luminous color and finely drawn trees. Robert Vonnoh's landscape exemplifies the deft touch and facility of execution which are characteristic of his work. Carleton Wiggins, William H. Howe, Henry R. Poore and Matilda Browne have all elected to paint cattle, and a very interesting group of pictures is the result. Percival Rosseau, painter of hunting dogs, is represented by a typical subject, full of sympathy for canine alertness. Will Chadwick, Frank Bicknell, Everett Warner and William S. Robinson are also represented.

HELEN COMSTOCK.

Newport, R. I.

The Newport Art Association also opened a new gallery last summer. The exhibition this year is their eleventh, opening July 16 and extending until August 12. A large main gallery provides room for the larger works, while smaller and more intimate rooms house the smaller exhibits. Oils, water colors and sculptures are shown, giving a comprehensive idea of what contemporary American artists all over the country are doing.

The Howard Cushing Memorial Gallery is having two auxiliary exhibitions during the course of the summer. The first of these, a group of oils by Leslie P. Thompson, lasted during the first of July, while the second, a loan exhibition of wood block prints from the Brown-Robertson Gallery in New York, extends through the first part of August. These wood blocks come from seven countries, and while English and American subjects are in the majority, there are some from such remote places as Czecho-Slovakia, five of whose engravers are represented. Henri Wils of Holland sends four prints, while Italy has four participants and Japan two. One of the Japanese artists, Usushibaia, has departed from the traditional themes of his country and given us a print in color after Frank Brangwyn's "The Bridges"—an evidence of the growing international influences which are drawing the artists of all lands together.

The majority of the French engravers have sent prints after famous French paintings instead of creating their own designs, as the English and Americans prefer to do. The English lead numerically, being twenty-one. Among them are John Nash, Margaret Pilkington, E. Y. Brinton, Robert Gibbings, Sydney Lee and Ada L. Collier. The Americans, who number seventeen, include John R. Bacon, Robert Warren Keith, John Held, Jr., Horace Brodzky, Blanche Lazell, and Elizabeth Colwell.

HELEN COMSTOCK.

New London, Conn.

Maurice Braun's exhibition of last month at the Brater Galleries in New London, Connecticut, and his promised exhibition for New York this fall are something in the nature of a home-coming—in spite of the fact that he returns to the East with a full-fledged reputation

as a Western painter because of his twelve years' residence in California. His student days, however, were spent in New York, and in 1900 he won a Hallgarten prize at the Academy. His later honors came to him in the West, whose dramatic landscape he has portrayed in the canvasses which represent him in the San Diego Museum and in the Municipal Collection of Phoenix, Arizona

The small paintings and sketches which formed his New London exhibition were, with two exceptions, Connecticut landscapes. Mr. Braun has been painting for several months in the vicinity of Silvermine, where he has recorded the progress of spring and summer since the first stirring of buds and leaves, a phenomena of which he is keenly aware after the entirely different changes of the California seasons. There is something in the lyric and intimate beauty of the Eastern landscape that has evidently stirred him keenly, while he is also capable of interpreting the majestic and monumental beauty of the West.

One of his impressions of the first promise of spring is in "The Edge of the Woods," which depicts a row of bare trees screening a meadow bathed in sunlight. Although there is not a sprig of green to be seen, there is something in the fresh color that tells of the first stirring of life in field and forest. This picture is also noteworthy because it shows Mr. Braun at his best in the drawing of a tree. To think of his pictures in retrospect invariably recalls the beauty of the tall, slender, gray trunks with their firm uplifted branches which he presents with an insistent faithfulness to line and structure.

Although Mr. Braun more frequently paints a landscape that takes one into the heart of the woods, far from all signs of human habitation, "The River" is an exception. In this picture a group of old mill houses are seen on the far side of the water, mirrored in the calm water. Throughout the whole picture is an air of peaceful seclusion from the rest of the world, with a stillness unbroken save for the very gentle wind that ruffles the water.

The two western subjects are so typical of the artist's treatment of a radically different landscape as to deserve especial mention. One is a bit of coast near San Diego and the other a mountain scene near Silverplume, Colorado. The latter affords a particularly interesting contrast with the pictures of the Eastern group. The clear mountain air demands that the artist secure an entirely different effect from that required by the more pronounced atmospheric conditions of the lowlands. The mountains stand out boldly with a clear definition of form as far as the eye can see, while the Connecticut meadows veil themselves in faint mists which are not their least charm. Mr. Braun's pictures of East and West are extraordinarily true to these differences of aspect.

The paintings which the artist will show in New York in the fall will be larger versions of these high-keyed, delightful impressions of Connecticut, but one cannot help but hope that some of the Western canvasses will also be included, for it is not often that one finds an artist who interprets East and West with equal understanding and sympathy.

HELEN COMSTOCK

Nanuet, New York

The summer exhibition of the Nanuet Painters is to be sent through Rockland, Orange and Bergen Counties, New York. The opening will be at Goshen on August 22, where the show will remain for two weeks and then go to Nyack and Nanuet.

The Nanuet Painters are working in the historic country which skirts the Tappan Zee, on the west bank of the Hudson opposite Tarrytown, about thirty miles from New York City. A truly American school is being evolved here which encourages individualism and which imposes no rules or formulas on the members of the group. They share with their predecessors in much the same region, the artists of the Hudson River School, an enthusiasm for the beautiful landscape of this country, although in their spirit and approach their pictures are thoroughly modern?

John E. Costigan and William H. Donahue, have adopted a brilliant and unusual technique by which pure and broken color is superimposed and juxtaposed with a novel manipulation of palette knife and brush. Costigan's "Girl and Goat," which represents him in the present exhibition, is a version of one of his favorite themes—a thicket with the light filtering through the interlacing twigs and branches. The dots and dashes of color seem to be applied almost indiscriminately, and yet the fact that they are used with rare discrimination is attested by the firm underlying structure and feeling for form that is maintained throughout. Donahue's

manner of painting is related to Costigan's, but has certain differences resulting from the artist's own individual style. There is a softness and mellowness about his work as well as glowing depth of tone that is exemplified in his "June Idyll," which pictures the rush of a swollen stream over its pebbly channel and by mossy rocks.

Frances Keffer has painted a number of colorful, sunny Holland pictures, among which her "Dutch Sunshine" is one of the finest, if for no other reason than the way in which she has painted the dark, clear, and very wet water of the canal. Sara Hess dips her brush in radiant yellow in her "Golden Tree." She always achieves a fine effect of distance in her pictures, gained with the seeming ease which only the skillful have mastered.

The pictures by Daniel Kotz and Albert Insley, who were pioneers in this section of the country when Inness and Wyant were painting there, show traces of the spirit of these older masters even while they have incorporated many of the newer methods of painting.

The sculptors of the Nanuet group also find most of their motifs in this countryside. Carl A. Heber, whose modeling is always firm and sure, contributes a delightful "Pastoral." Ida Costigan's touch is definite and vigorous in "Old Annie." Another interesting work is George Lober's "Snake Charmer."

The Nanuet Painters sent a traveling exhibition through the Middle West last spring which was shown at the Milwaukee Art Institute, the Hackley Gallery at Muskegon, Michigan, in St. Louis and at Seymour, Indiana. The regular New York City exhibition of the group will be held at the Babcock Galleries in December. Plans are under way to send an exhibition to Europe next year.

HELEN COMSTOCK.

Salem, Mass.

While not in the nature of a "summer exhibition," it seems timely to mention a newly acquired portrait which the Essex Institute at Salem, Mass., is exhibiting. This is a recently discovered portrait of Nathaniel Hawthorne by Henry Inman. It fills a long-felt want in the Institute since heretofore there has been no portrait of the author in this collection of the city of his birth. It is especially interesting, too, because it presents him at the age of thirty-five, nine years earlier than any of his other portraits. It shows him wearing a heavy moustache, which he had removed when Osgood painted him in 1840, though the thick wavy locks, made familiar by other portraits, are much in evidence.

It seems that this picture was in the collection of the artist's son, John O'Brien Inman, and was sold by his heirs. The picture recently found its way to a New York art dealer. A catalogue of the sale at which the painting was offered reached Henry Belknap, secretary of the Institute, but it was too late to take any action before the sale. He kept track of the picture, and found that it went to another New York Gallery. In the meantime a good friend of the Institute very opportunely came forward with a liberal check for the purpose of enabling the organization to make just such purchases when the opportunity arose. The picture, in consequence, has now very appropriately found a home in the city so indelibly associated with the great author's name.

Just where and when the portrait was made can not definitely be determined, although it was no doubt painted in either Boston or Salem. Inman was in Boston in 1835, the year the picture was painted, and the two may have met through Manasseh Cutler Torrey, a native of Salem and pupil of Inman, or perhaps through Thomas Doughty or Washington Allston, since these two were friends of both author and painter.

Henry Inman was born in Utica, N. Y., in 1802. He showed a marked talent for art while quite young and apprenticed himself to John Wesley Jarvis, with whom he toured the country from Boston to New Orleans. When his apprenticeship was over he went to New York, and so strongly identified himself with the development of art in that city that when the National Academy of Design was founded he became its first vice-president, an office he held until he moved to Philadelphia in 1832. A period of ill health led his friends to urge him to go abroad, hoping the change would be of benefit. He left for England in 1845, and while there painted portraits of Wordsworth, Macaulay and Dr. Thomas Chalmers. He died in 1846, not long after his return to this country. One of his finest portraits is that of Martin Van Buren, which is in the Metropolitan Museum, while his "Mumble the Peg" is in the Pennsylvania Academy. The Hawthorne portrait is a splendid example of his work, being vigorous in style and fine in color.

HELEN COMSTOCK.

ARCHAEOLOGICAL NOTES AND COMMENTS

American School at Athens Notes

By permission of Dr. Henry S. Pritchett, Acting President of the Carnegie Corporation, ART AND ARCHAEOLOGY is able to publish the following letter, in which Mr. Elihu Root, Chairman of the Board of Trustees of the Corporation, notified the Prime Minister of Greece of the appropriation which the Corporation has made for the building of the Gennadeion in Athens:

CARNEGIE CORPORATION
522 Fifth Avenue, New York

June 6, 1922.

His Excellency,
The President of the Ministerial Council,
of the Kingdom of Greece.

Sir:

I have the honor, on behalf of the Trustees of the Carnegie Corporation, formally to make known to Your Excellency and your associates of the Ministerial Council, that the Carnegie Corporation has voted an appropriation of $200,000 to the American School of Classical Studies at Athens for the erection of a building to accommodate the Library and Collections which his Excellency, Mr. Joannes Gennadius, citizen of Greece and Dean of the Greek Diplomatic Service, has recently presented to the School.

The Corporation was moved to make this contribution, not only by its deep interest in the American School, which we are happy to think worthily represents American scholarship in the capital of Greece, but also by the desire to make prompt and adequate recognition, on the part of America, of the remarkably generous, public-spirited and enlightened act of Mr. Gennadius. We cordially sympathize with his twofold purpose—both to enrich the scholarly resources of his native country for the use and benefit of the scholars of all nations who resort to Athens for the study of the Hellenic civilization and at the same time to promote and confirm the long-time friendship between the peoples of Greece and the United States of America by means of a visible monument in Athens and a continuing beneficent stream of influence flowing from his foundation. We trust and believe that this purpose will be realized.

I take this occasion to express to Your Excellency our appreciation of the fine spirit of cooperation which the Greek Government, on its part, has manifested in undertaking to assist the American School to procure, as a site for the Gennadius Library, the tract of land adjacent to the present property of the School. It was with full knowledge of your generous action, and in the confident belief that it would speedily be crowned with success, that our Trustees have made the grant for the erection of the building.

Accept, Excellency, the assurance of my distinguished consideration.

Sincerely yours,
(Signed) ELIHU ROOT,
Chairman of the Board of Trustees.

The Greek Government had already taken steps to provide the site for the Gennadeion, as is shown by the following message to Dr. Gennadius:

ATHENS, *May 14th, 1922.*

MINISTRY OF FOREIGN AFFAIRS:

Replying to your report and to the telegraphic messages connected therewith, and congratulating you heartily on the gift, so conducive to our national relations with America, which you made of your rich Library to the American Archaeological School in this city, we have the honor to inform you that we have taken the necessary steps with the Ministry of Education for the concession of the plot of land applied for by Mr. Hill and destined for the erection of the institute of international studies.

We shall communicate to you in good time every relative decision arrived at, so that you may be informed.

G. BALTAZZI,
Minister of Foreign Affairs.

ART AND ARCHAEOLOGY

First Indian Fair at Santa Fe

The First Annual Southwest Indian Fair and Industrial Arts and Crafts Exhibition, limited strictly to Indian entry and competition, and participated in by the various tribes and pueblos of the southwest, will be held at Santa Fe in September. Local Indian fairs have been held on reservations and at some of the county fairs in New Mexico there have been exhibits of Indian handiwork, but nothing of the scope and character of the exhibition herein contemplated has ever been witnessed in New Mexico or Arizona.

The objects of the exhibition are encouragement of native arts and crafts among the Indians; to revive old arts; to keep the arts of each tribe and pueblo as distinct as possible; the establishment and locating of markets for all Indian products; the securing of reasonable prices; authenticity of all handicraft offered for sale and protection to the Indian in all his business dealings with traders and buyers.

The exhibition is the outgrowth of ideas advanced several years ago by Miss Rose Dougan of Richmond, Indiana, who has interested herself in a practical way in Indian handicraft and has tendered an endowment from the income of which some of the prizes offered are in part derived.

Mr. Lansing B. Bloom, Assistant Director of the State Museum, will have charge of all exhibits, and has been appointed superintendent of exhibits. All exhibits must be delivered to him at the state armory, Santa Fe, not later than Saturday, September 2, 1922.

Archaeologists Take Up Work in Tigris and Euphrates Valleys

Archaeological investigation of ruined cities in the valleys of the Tigris and Euphrates, begun about the middle of the last century, and which suffered a brief set-back during the World War, is now proceeding with increased success, according to Dr. Frederick A. Vanderburgh, lecturer in Semitic languages at Columbia University. Much of the material, discovered just as the war was commencing, he says, is only now being assimilated.

"The results have been wonderful and such as to aid very much in supplementing the records left to us by the Greek historians and the writers of the Old Testament. The faulty chronology of Western Asia that had come down to us has now been checked up to a point of accuracy.

"One of the most interesting of late discoveries is the Assyrian law code, having similarity to the Babylonian code of Hammurabi, which embraces in its codification ancient Sumerian family laws."

The Summer Session of Colombia University had a course in archaeology, dealing with the newer discoveries, as affording material for revising the history of Western Asia, a course which Dr. Vanderburgh characterized as valuable to Bible students and those about to visit Palestine and adjacent lands.

Legends of Carthage Declared to be Myths

French archaeologists declare that sufficient excavations of the ancient city of Carthage have now been completed to upset the accepted history and many beliefs about its foundation and origin. Mr. Icard and M. Gielly, who last January unearthed a Punic temple, have now ample evidence of the ancient existence of a temple dedicated to the Egyptian deity Tanit, including votive jars containing the bones of sacrificed infants.

Archaeologists are now certain that Carthage was not of Phoenician, Chaldean or Greek origin, but put the city's birth back to the epoch of the Trojan war, instead of at 800 B. C. The legend of Dido about the founding of the city on Byrsa hill is also upset by evidence that the original site was a mile distant from the hill.

Egyptians Had Fine Surgeons in 1700 B. C.

Egyptians as early as 1700 B. C. were able to perform surgical operations as intricate as many accomplished by modern surgery. Skulls were opened and the contents examined, fractures were set and many other operations believed to be comparatively modern were carried out.

These revelations were made lately in an announcement by Prof. J. H. Breasted of the University of Chicago of a preliminary translation of an Egyptian papyrus believed to be more than 3,600 years old.

"I expect that it will take at least two years more for a full translation," he said. "The papyrus is the oldest ever found which treats of medical science."

Feats of science now considered extremely hard to perform are described in full in the papyrus.

Pictures of 200 A. D. are Found in Syria: Ancestry of Byzantine Painting

According to a report by Professor J. H. Breasted, of the University of Chicago, the ancestry of Byzantine painting, hitherto somewhat obscure, was discovered while hostile forces were closing in on the investigators in Syria. Professor Breasted's report is about to be presented to the French Academy of Science.

The investigation was made under his direction after the return of the Mesopotamian expedition of the Oriental Institute of the University of Chicago and its arrival in Bagdad late in April, 1920. The British civil authorities at this time asked Professor Breasted and his party to ascend the Euphrates to a ruined Roman fortress at Salihiyah, on an informal archæological expedition on their behalf.

It developed that while the British forces had occupied the ruined fortress, Captain M. C. Murphy had discovered in a chapel in the ruin some wall paintings evidently of ancient origin.

The chapel was seen by the investigators to have been the temple not only of Roman legionaries but likewise of some Oriental cult. This appeared from the character of the paintings, some of which had to be uncovered by cleaning rubbish which had accumulated in the ruin. One of the paintings appeared to show a local Oriental family at worship, another showed a group of Roman soldiers worshiping before images of the deified Emperors. The Oriental personages portrayed had hands upraised in a gesture recognized as one employed in Eastern religious rites; among them was a gorgeously dressed woman thought to be a local ruler such as Zenobia, the famous queen who defied Rome. The name inscribed beneath her figure resembled in form that of Zenobia, who ruled Palmyra, only 100 miles away.

"That we have in these wall scenes an example of the mostly lost ancestry of Byzantine painting is evident," said Professor Breasted, "from comparison of them with the early Mosaics surviving at Ravenna. This ruined Roman fortress at Salihiyah has thus furnished a new and unparalleled example of the transition from decadent Orientalized Hellenistic art to the Byzantine art from which reviving Europe inherited so much."

The party concluded that the probable date of the paintings was the third century, "when East and West met in Syria."

The XX International Congress of Americanists

The following are the titles of papers read by the American delegates at the sessions of the XX International Congress of Americanists in Rio de Janeiro, August 20-30: Ales Hrdlička: "The Newest Development Relating to the Origin and Antiquity on this Continent of the American Indian"; Walter Hough: (1) "Ethnography of the Herndon and Gibbon Exploration of the Amazon in 1851"; (2) "A Classification of American Fire Myths"; Gilbert Grosvenor: "The Functions of the National Geographic Society"; Peter H. Goldsmith: "American Indigenous Contributions to the Spanish Language"; Sylvanus G. Morley: (1) "The Chronological Yardsticks of Ancient America"; (2) "Tuluum, An American Troy"; Herbert J. Spinden: "Relative Chronology of the New and the Old World"; Mitchell Carroll: "Aboriginal American and Mediterranean Bronze Age Architecture, a Comparative Study."

The X International Congress of Architects

The X International Congress of Architects will be held in Brussels, September 4-11, 1922, under the auspices of the Société Centrale d'Architecture de Belgique. The Congress, which will include delegates from all friendly countries, will be held under the distinguished presidency of M. Gerault, Member of the Institute of France. Among the subjects for discussion are, the responsibilities of the architect, the profession of architecture: its aims and its rights, women architects, town planning, and the preservation of prehistoric monuments. An architectural exhibition, both Belgian and foreign, will be held during the Conference. The permanent committee of the Congress includes the following members from the United States: Cass Gilbert, Chairman, Francis R. Allen, Glenn Brown, Wm. Rutherford Mead and George Oakley Totten, Secretary.

BOOK CRITIQUES

An Introduction to the Study of Landscape Design. By Henry Vincent Hubbard and Theodora Kimball. New York: The Macmillan Co. $15.00.

Although this sumptuous volume is entitled an *introduction* to the study of Landscape Design, it is more, as it is a complete resumé of the whole art of landscape architecture, dealing with the subject from all sides, the theory, the various problems of landscape characters, the natural forms—hills, valleys and rivers—ledges, shores, planting, parks and private estates.

No better definition of the subject could be given than that of Charles W. Eliot. He says: "Landscape architecture is primarily a fine art and as such its most important function is to create and preserve beauty in the surroundings of human habitations and in the broad natural scenery of the country; but is also concerned with promoting the comfort, convenience and health of urban populations, which have scanty access to rural scenery and urgently need to have their hurrying, workaday lives refreshed and calmed by the beautiful and reposeful sights and sounds which nature, aided by the landscape art, can abundantly provide."

The profession of landscape architect is a comparatively new one in this country, but tremendous progress has been made in these few years. Witness the improvement in our cities, our civic plans, public parks and lovely gardens and grounds that surround the American homes.

There is a great movement everywhere even for reservations of outlying land that goes beyond the public parks of the cities proper. Extended driveways along river or lake shores, or country roads, is part of the beautiful scheme that this study of landscape work evolves

Then the planting of trees and shrubs, their arrangement to complete the artistic design, has reached a most perfect development. One very particular charm in the work is the far-reaching effect. The pleasure, joy and content that it is possible to give a limitless number of persons, is an important factor.

An architect may build a beautiful house that is satisfactory to a family, but the landscape man may develop the grounds about that house, or a park that will be seen and enjoyed by hundreds of passers by.

The authors begin with some of the older styles of landscape design, the Moorish in Spain, where still remain a few of the famous gardens; the Italian Renaissance villas, the grounds full of their lovely fountains, terraces, statues and picturesque stone steps; then the English country estates of formal plan as well as the charming country cottages.

The American Society of Landscape Architects was founded in 1899, the first degree for a collegiate course in landscape architecture was granted in 1901. Now degrees are offered by six institutions in the United States, proving the importance of this line of study. The book deals with the subject of the profession,its possibilities and the increasing demand for experts.

The wealth of illustration throughout the volume consists of charming drawings by the author, Henry P. White, A. B. LeBoutillier, H. G. Ripley and others and a series of beautiful photographs.

The whole is a rare and beautifully written treatise and an invaluable contribution to the growing library on the subject. There is a list of references on landscape architecture very complete, general and specific, and a helpful bibliography.

Mr. Hubbard, as Assistant Professor of Landscape Architecture of Harvard University, and Miss Kimball, Librarian of the School of Landscape Architecture, know their subject as few can know it. HELEN WRIGHT.

The Van Eycks and their Followers. By Sir Martin Conway, M. P. New York: E. P. Dutton & Company, 1921. $15.00.

The writer of this most complete history of Dutch Art, of the Van Eycks and a crowd of followers, the average student of the subject scarcely knows by name, published in 1886 a set of lectures, "Early Flemish Painters," that he had delivered as Professor of Art at Liverpool. He writes of the kind reception this volume has received by a small and appreciative group of persons. He prints a letter received at the time from his "beloved friend" Professor John Ruskin, which is not the least interesting part of the book, and one feels sure that the eminent art critic would have written even more enthusiastically of this later, fuller work.

He says: "Dear Conway. I am altogether and all round delighted with your book. The plates are perfection. The text seems to me as right as right can be and deeply interesting. The little golden block on cover is as beautiful as old work. Could your binder do a dozen for me in strong morrocco or in white vellum? I'll pay for the strongest and prettiest binding you can devise with him, for presentation copies

to schools. Ever your entirely pleased and affectionate J. R."

The book describes the work of all the known artists of the Low Countries down to Bruegel and connects the artistic product with contemporary social movements. It contains thirty-two full chapters and nearly one hundred illustrations.

The writer begins with the Gothic school, when "no age except in the great days of Greece was the out-put of humanity more wonderful, more splendid than in the Gothic period," when the great cathedrals with their hundreds of carved figures over sculptured portals raised high their perfect pinnacles. Then follows the Mystics, who awoke to the actuality of life, when lines were more flowing, light and spaciousness, even picturesqueness, was the trend of architecture. The "Virgin smiles and the Child lovingly strokes her cheek."

In the latter part of the 14th century and the beginning of the 15th, the Dukes of Berry and Burgundy, collectors and patrons of Art, had made for them the wonderful Books of Hours, illuminated by the masters with exquisite miniatures, bound in gold and jewelled bindings—cherished now in a few great public and private Museums and collections.

There has been no art more interesting more quaint, yet of the finest technique, than that of the Low Countries, the impressive and stately altar-pieces painted by Hubert van Eyck and his brother John, full of figures of Knights, Saints, Christ and the Virgin—characterized by a spiritual symbolism.

Roger van der Weyden, Dirk Bouts, Hugo van der Goes, Hans Memling, the later Bruges, artists, then Quentin Massys, Jerome Bosch, Mabuse and many others—whose work is only brought to record by the most careful study and infinite research. Peter Bruegel is the last of the artists listed, a great man, a very great man, he stands at the end as the Van Eycks at the beginning of a series of artists who expressed the glory of the Netherlands. He was one of the world's great painters and ranks with the foremost of every age.

"He stands as much alone in the mid-sixteenth century as the Van Eycks at the beginning of the fifteenth, giants all three, opening and closing the long procession of lesser men who connected them."

Sir Martin Conway is one of the most distinguished of Englishmen, professor, lecturer, explorer and surveyor of the Himalayas, antiquarian, traveller all over the world, director and founder of clubs and societies—has still had time to write graphically not only on his explorations but many delightful books on Art.

HELEN WRIGHT.

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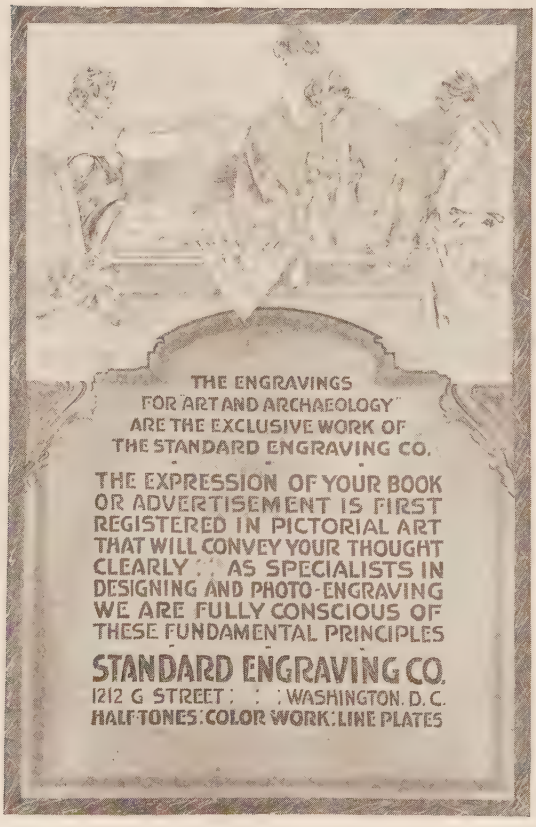
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HALF-TONES: COLOR WORK: LINE PLATES

Let 'Er Buck—A Story of the Passing of the Old West. By Charles Wellington Furlong. With 50 illustrations taken from life. New York: G. P. Putnam's Sons, 1921.

Here is the story of the passing of the Old West, profusely illustrated from photographs of bucking horses, cow-pony races, roping wild steers, bull-dogging Texas longhorns, Indians, cowboys, and old-time scouts as seen at the famous annual cowboy carnivals, the Round-Up, held in Pendleton, Oregon, each September. The author himself understands intimately the Round-Up as participant, not merely as observer, and it is from personal experience as well as acquaintance with the most famous personalities in this annual revival of the practices and sports of the Old West that he tells this thrilling tale. "Let 'Er Buck" will delight every American who loves out-of-door life and real sportsmanship, and is interested in the pioneer civilization of the Pacific Northwest.

An introductory word is furnished by George Palmer Putnam, to whose personal encouragement and practical cooperation the author attributes the inspiration for writing the book. Charles F. Lummis says of the people of the Southwest that they believe in "catching their archaeology alive." This is what Mr. Furlong has done for us in epitomizing the range life of the pioneer, the cowboy, the Indian of the old-time, but changing West, now all but disappearing below the horizon of time. It is a great thing to be the Homer of the Wild West, but the series of thrills this book gives fairly entitles Mr. Furlong to the honor of being so designated as the author of this Epic Drama, portraying cowboy and cowgirl buckaroos—steer bulldogging—bucking contests—riding outlaw horses—the cowboy and Indian Grand Mounted March and the color-reeking Indian ceremonial dances, all features of the Pendleton Round-Up. Mr. Furlong is artist and photographer as well as writer, and many of the wonderful illustrations are from his own camera. These pictures, with the appended story so thrillingly told, are the most graphic feature of the book, and supplement the dramatic narrative.

Theodore Roosevelt would have been "dee-lighted" with this volume, so distinctly American in subject, spirit and character with a kick in every picture and a punch in every sentence. The reader will derive from it a bigger, finer feeling toward life, and a warmer sympathy for the rugged pioneers who struggled against unequal odds to attain the Winning of the West. M. C.

AMERICAN SCHOOL AT ATHENS NUMBER

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THE ARTS THROUGHOUT THE AGES

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CONTENTS

THE AMERICAN SCHOOL OF CLASSICAL STUDIES AT ATHENS . . . . . *Harold North Fowler*

Foundation, Organization, and Work of the School 171
Three Illustrations

Excavations of Classic Sites 184
Nine Illustrations

The Excavations at Corinth 193
Twenty-one Illustrations

Excavations of Pre-Hellenic Sites 226
Five Illustrations

Researches on the Athenian Acropolis 233
Six Illustrations

The Publications of the School 246

The Opportunities of the School in the Byzantine Field 250
Four Illustrations

The Excavations at Colophon 256
Three Illustrations

ARCHAEOLOGICAL NOTES AND NEWS 261

BOOK CRITIQUES 263

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Marble Head, called Hera, from the Argive Heraeum.

ART and ARCHAEOLOGY

The Arts Throughout the Ages

VOLUME XIV OCTOBER, 1922 NUMBER 4

THE AMERICAN SCHOOL OF CLASSICAL STUDIES AT ATHENS

By HAROLD NORTH FOWLER

FOUNDATION, ORGANIZATION, AND WORK OF THE SCHOOL

THE American School of Classical Studies at Athens was one of the earliest results of the foundation of the Archaeological Institute of America. The Institute was founded in 1879 by Professor Charles Eliot Norton and those who followed his initiative, and in the first report of its Executive Committee we read, "It is greatly to be desired that a similar American School may before long enter into honorable rivalry with those already established." The schools here referred to as already established are the French École d' Athènes, founded in 1846, and the German Archäologisches Institut, established in 1874. A committee appointed by the Archaeological Institute to establish the School at Athens held its first meeting June 22, 1881, and the work of the School began in the autumn of the following year. The French institution at Athens bears the vague title "École d'Athènes," and the German school is called "Das Archäologische Institut." The founders of the American School gave it a title which plainly indicates its object. It is not a school exclusively for archaeological research or training, nor a

PREFATORY NOTE.—At the request of Professor Capps, Chairman of the Managing Committee of the School, I have edited and, in part, written the present issue of ART AND ARCHAEOLOGY. For the articles on the history and development of the School and on excavations of classical and pre-Hellenic sites I have derived material from the fifth *Bulletin* of the School, "The First Twenty Years of the American School of Classical Studies at Athens," by the late Professor T. D. Seymour, from an unpublished history of the School by Professor Henry B. Dewing, and from Professor Capps, Dr. Hill, Dr. Blegen, and Professor Dinsmoor. A large part of the account of the excavations at Corinth is printed exactly as sent by Dr. Hill, and almost the whole of the article on the School and the Acropolis as sent by Professor Dinsmoor. Dr. Robert P. Blake kindly contributed the article on possibilities of research in the Byzantine field, and Professor George H. Chase, to whom I am indebted for much help throughout, contributed the articles on the publications of the School and, with the assistance of Dr. L. B. Holland, on Colophon. The three last-mentioned articles are printed with very few changes on my part.

HAROLD N. FOWLER.

The American School of Classical Studies at Athens.

school without definite and clearly designated purpose. The first paragraph of its Regulations reads: "The object of this School shall be to furnish to graduates of American universities and colleges and to other qualified students an opportunity to study Classical Literature, Art, and Antiquities in Athens under suitable guidance, to prosecute and to aid original research in these subjects, and to coöperate with the Archaeological Institute of America, so far as it may be able, in conducting the exploration and investigation of classical sites."

The opportunities for profitable study in Athens by American students have enormously increased since 1882, and the scope of the American School correspondingly extended. The University of Athens has become a great university, and men of international eminence fill many of its chairs. The Greek Archaeological Society, with a membership extending throughout the world, has been instrumental in giving Greece a commanding position in this field. In the University, museums, and national schools are to be found specialists in every field of antiquarian studies, and their services are freely placed at the disposal of serious American students. The museums of Greece are incomparably rich in materials of every kind illustrating the civilization of the Eastern Mediterranean. The American School, therefore, while maintaining a small staff for the instruction and guidance of its students, commands all the scholarly resources of Athens for those who are pursuing studies in highly specialized fields. Thus the

work of a student of sculpture was recently directed by Professor Studnizcka of the German Institute, and next year a student of numismatics from the Numismatical Society of New York will study under Dr. Svoronos of the Greek Numismatic Museum. Among the fields in which our American students have worked with especial profit to themselves and have made distinguished contributions to science are Ancient History and Epigraphy, Geography and Topography, and Architecture—subjects included in the phrase "Classical Literature, Art and Antiquities," if it is understood as it was meant by the founders of the School.

In 1882 the school possessed no building of its own and no endowment, but its work was carried on in rented rooms, and its expenses were met by annual contributions. That an institution founded upon such an insufficient financial basis has continued to stand for forty years is due in great measure to the excellence of its peculiar organization.

The French and German schools at Athens were maintained entirely by the home governments, and the same is true of the schools established later by Austria and Italy. Even the British school, founded in 1884, has received an annual grant from parliament. The American school could expect no direct assistance from the home government, but had to depend entirely upon contributions from other sources. It might have seemed prudent to wait until a modest endowment had been secured before opening the School, but the committee appointed by the Institute felt that delay was to be avoided and therefore "persuaded the friends of nine colleges and universities to undertake to pay $250 annually, for each college, towards the current expenses of the School, for a period of ten years or until the permanent endowment be secured." By this means funds sufficient for the needs of the infant institution were obtained and—what has proved to be of the greatest advantage—close connection between the School and some of the most important seats of learning in the United States was established. To the original committee were added members to represent the coöperating colleges and universities, and in this way the Managing Committee, which has for forty years conducted the affairs of the School, came into being. The inauguration of the system which has proved to be so satisfactory is due chiefly to the chairman of the original committee and first chairman of the Managing Committee, the late Professor John Williams White. In 1886 (as a measure of financial prudence), the School was incorporated under the laws of Massachusetts.

ORGANIZATION

The vested funds and the property of the School are managed by a Board of Trustees, not exceeding fifteen in number, resident in the United States. The first President of the Board was James Russell Lowell, and the present incumbent is Mr. Justice William Caleb Loring, until recently an Associate Justice of the Supreme Court of Massachusetts. The immediate supervision of the School is, however, exercised by a Managing Committee, also resident in the United States. This Committee consists of representatives of the cooperating institutions—now thirty-three in number—a few members chosen for special reasons (e. g. Dr. Edward Robinson, of the Metropolitan Museum, and Dr. Arthur Fairbanks, of the Boston Museum of Art), and four members ex-officio: the Treasurer of the

View from the School. Monastery in the Foreground; Mt. Hymettus in the Background.

Board of Trustees, the Director of the School, the President of the Archaeological Institute of America, and the Chairman of the Managing Committee of the School in Palestine. The Trustees are for the most part men of affairs, the members of the Managing Committee for the most part men of learning. The chairman of the Managing Committee, elected by his colleagues, is the executive head of the institution. The first chairman, Professor John Williams White, served until 1887. His successor, Professor Thomas Day Seymour, served with rare devotion until 1901, to be followed by Professor James Rignall Wheeler, whose self-sacrificing care for the interests of the School ended only with his death in 1918. Each of these chairmen contributed greatly to the material and scholarly development of the School. The present chairman is Professor Edward Capps. All the officers of the School in America, whether of the Trustees or of the Managing Committee, serve without compensation.

This plan of management has in practice worked admirably. There is no overlapping of function such as is observed in most institutions of learning. As an educational institution the School is under the full control of the colleges and universities that help to support it; its property and investments are in the hands of business men. Each year the Treasurer, representing the Trustees, informs the Committee of the amount of income available for the ensuing year, and the Committee makes

its budget accordingly. There can be no expansion unless there are funds to maintain it, nor can a deficit be deliberately incurred. In fact, there are no annual deficits to be made up, and the endowment funds have not only never been encroached upon but have been consistently built up from year to year out of savings.

The staff at Athens now consists of a Director, an Assistant Director, an Annual Professor sent out by one of the coöperating institutions, and an Assistant Professor of Architecture; to these may be added the two Fellows, one of whom receives his stipend from the Archaeological Institute of America and the other from the School. As soon as funds are available additional Fellowships will be established, for instance in Greek Literature, Ancient History, Byzantine History, Early Christianity, and Architecture. Professor Joseph Clark Hoppin, who proposes to conduct certain supplementary excavations at the site of the Argive Heraeum, is under appointment as Research Professor. In the near future a Librarian will be appointed and probably an Executive Secretary.

MATERIAL DEVELOPMENT

In 1882 the School had, as has been said, no endowment, no building, and no income beyond what was promised in the name of nine American institutions of learning. The salary of the first Director, Professor W. W. Goodwin, was paid by Harvard University. His first care on reaching Athens was to find quarters for the School, and early in October, 1882, the School took possession of the upper part of a house in a street named after Queen Amalia, the consort of Otho, first King of the Hellenes. This house, conveniently situated near the Arch of Hadrian and the Olympieum, served the needs of the School until 1887, when the lease was abandoned in the hope that the new building planned for permanent occupation would be ready in the autumn of that year. This hope was not fulfilled, and for a year the School was housed in rented rooms in the city, but in the autumn of 1888 all was in readiness, and the School was at last able to take possession of its permanent home.

The School building stands on the southern slope of Lycabettus, commanding a view across the valley to Mt. Hymettus, over the roofs of the city to the Acropolis, and beyond the blue waters of the Saronic Gulf to the island of Aegina and the Peloponnesian mainland. The plot of ground on which it stands, about an acre and a half in extent, was presented to the School by decree of his Majesty King George I, on June 29, 1886. It is bounded on three sides by streets, and the grounds of the British School adjoin it on the west. Across the street to the south are the buildings of the Evangelismos hospital, to the east is the monastery "Of the Incorporeal Ones" (Ton Asomaton), and across the street to the north is a plot of ground jointly acquired by the British and American schools, in part by gift of the Greek government and in part by purchase,[1] in 1919. On our part of this it is proposed to erect a women's hostel, in order that the women who attend the School may have suitable and convenient quarters. The School building, as erected in 1888, contained a large room for the library, apartments for the Director and his family, a few sleeping rooms for students, a kitchen,

[1] The funds for the purchase of our part came from private subscriptions, supplemented by gifts representing five women's colleges—Bryn Mawr, Vassar, Mt. Holyoke, Smith and Radcliffe. President Thomas of Bryn Mawr took the lead in raising the money from the colleges.

and other rooms for various purposes. For many years this building was entirely satisfactory, but as time went on, and especially in view of the constant and gratifying growth of the library, additional space became necessary. It was therefore decided, in 1907, to build an east wing which should furnish the needed space and would also complete the original plan in a logical manner. The funds were contributed by friends of the School, chief among them being Mr. James Loeb, for many years and now a constant benefactor; his gift of $25.000 made possible the addition. The work was finished in 1915. The addition increased the library space by about one-third, provided on the first floor a common room for the students, a study, an office, and a ladies' room; on the ground floor a kitchen, pantry, and student's dining room, and above the library four bedrooms for students. The School now possesses a building (p. 174) adequate for all present needs—except housing the women—and, in particular, a library room of ample proportions, containing a collection of books which has grown from about 400 in 1882 to about 10,000, and suitable also for the public meetings of the School, at which large audiences are present. It is of interest to note that the School's principal library fund bears the name of John Hay, having been contributed by Mr. Hay in 1903.

The financial position of the School has always been sound, because of careful management, but has never been satisfactory. The erection and enlargement of the building, the purchase of the land for the women's hostel, the growth of the library, and such excavations as have been carried on hitherto have been made possible by funds generously contributed for special purposes. For the payment of current expenses the School has had to depend in great part upon the annual contributions of the coöperating colleges and universities, though an endowment fund of over $150,000 has been built up out of gifts and savings. In 1917, when the pressure of the war began to be seriously felt, the Carnegie Corporation came to the rescue with a gift to endowment of $25,000, and the Auxiliary Fund, modelled on the alumni funds of many colleges, was established. At the present time over 400 subscribers to this Fund contribute annually some $6000, which goes into endowment. The annual budget is in the neighborhood of $20,000.

In the spring of 1920 it became clear to the Managing Committee that the resources of the School, then amounting to only about $14,000 annually, were no longer adequate to maintain it on its former level of efficiency and service, to say nothing of the desirability of expansion to meet the extraordinary opportunities which the post-war conditions in the Near East had created. It was clear that from $200,000 to $300,000 additional endowment was required to meet the situation. Plans were accordingly formulated to this end, and an application for aid was made to the Carnegie Corporation in the summer of 1920. This application was ably reinforced by Dr. Edward Robinson, Director of the Metropolitan Museum of Art, who seized the occasion of a visit to Greece in the spring of 1921 to study the work of the School at close range and to formulate independently an estimate of its immediate needs. Already intimately acquainted with the internal affairs of the School as a member of the Managing Committee, and exceptionally equipped to appraise its achievements in the fields of archaeology

The Gennadeion: Study of the Principal Elevation.

and art, Dr. Robinson addressed to Dr. Pritchett, President of the Carnegie Corporation, an earnest plea for the assistance for which application had been made. In May, 1921, the Corporation appropriated $100,000 for endowment on condition that an additional $150,000 should be raised by July, 1925, and further agreed to pay $5,000 a year for current expenses while the new endowment was being raised. It is gratifying to be able to say that of the $150,000 to be raised by the School nearly two-thirds have already been subscribed. Moreover, in the spring of 1922 Mr. John D. Rockefeller, Jr., after a careful examination into the history, management, and needs of the School, subscribed $100,000 toward its endowment, on the sole condition that the campaign already in progress should be successfully completed by June, 1924; and he also in the meantime agreed to contribute $5,000 a year for current expenses. The Trustees and Managing Committee are therefore charged with the task of raising the balance of the fund of $150,000 in less than two years, at which time $200,000 additional becomes available—or a total addition to endowment of $350,000.

THE GENNADIUS LIBRARY

Meanwhile the School has received a remarkable gift which would certainly not have been offered if the past of the School had not been such as to inspire the donor with confidence in its future. Dr. Joannes Gennadius, dean of the diplomatic service of Greece, and for forty years the Greek Minister at the court of St. James, has presented his magnificent library, now in his residence in London, to the American School at Athens, on condition that it shall be properly housed, cared for and made accessible to the scholars of the world who resort to Athens for study.

The Library consists of between 45,000 and 50,000 items, all relating to Greece, ancient, Byzantine, and modern—its history, geography, language, literature, art, archaeology, Early Christianity, etc. It comprises a superb set of the first editions of the Greek classics; all the first and rarest editions of the Greek Scriptures, of the Greek Fathers, and of the Greek Liturgies; a full collection of works on travel in

Greece and the Levant; some 800 historic and artistic bindings of the sixteenth, seventeenth, and eighteenth centuries; a large number of manuscripts; and innumerable rare or unique single items. But its chief value is in its completeness as a collection—"uniquely comprehensive within its field" says Mr. Herbert Putnam, the Librarian of Congress, who has examined the catalogue and appraised the library, and "without its equal in the world" according to a distinguished Englishman who is intimately acquainted with the collection.

During the forty years of its existence the American School at Athens has accumulated, through modest buying and through gifts, a working library of some 10,000 volumes. Now at a single stroke it comes into the possession of what is probably the richest and most complete collection in the world within its field, which is precisely the field which the School was established to cover, and of a value approaching that of the present total property and endowment of the School. It is an amazing piece of good fortune, and an act of unexampled generosity on the part of the distinguished Hellene who made the gift. Through this gift the School at once enters upon a period of increased usefulness to classical studies.[1]

The readers of this journal have already been informed of the generous grant of $200,000 made by the Carnegie Corporation to enable the School to comply with the conditions of the gift of the Gennadius Library. The Greek government has also done its part in the same spirit of generous rivalry by recommending to Parliament an act of expropriation by which a magnificent plot of land in close proximity to the present property of the School has become available, without cost to the School, for the Gennadeion. The announcement of the gifts of Dr. Gennadius and the Carnegie Corporation made to Parliament by the Greek Minister of Education, when he introduced the bill and read the letter of Mr. Elihu Root to the Prime Minister, evoked great enthusiasm; and on all sides the international significance of this new foundation is recognized. Plans for the building and for the development of the grounds are already well advanced; within a short time the Gennadeion will be open for the use of scholars of all nations; and a new era both for the American School and for the studies fostered by it will begin.

THE DIRECTORATE

In the earliest years of the School, the Director was simply an American college professor who had obtained leave of absence from his regular work for the purpose of serving the School. So Professor Goodwin, of Harvard, was succeeded by Professor Packard, of Yale, who was, however, overcome by illness soon after he reached Athens; the management of the School was taken over by Dr. Sterrett, who had been a member of the School in the preceding year. In 1884–1885 Wesleyan University furnished the Director, Professor Van Benschoten, who was followed in succession by Professor F. D. Allen, of Harvard, Professor D'Ooge, of the University of Michigan, and Professor Merriam, of Columbia. Each of these was an admirable scholar, but each had to begin as a new man at

[1] For a full description of the Gennadius Library, together with the correspondence which passed between Mr. Gennadius and Professor Mitchell Carroll, Secretary of the Washington Archaeological Society, Professor Capps, Chairman of the Managing Committee, and Justice Loring, President of the Trustees of the School, the reader is referred to the May number of ART AND ARCHAEOLOGY; to the "American School at Athens Notes" in the June and July numbers for the announcement of the gift of the building by the Carnegie Corporation; and to these "Notes" in the September and October numbers for the correspondence between Mr. Elihu Root of the Carnegie Corporation and the Prime Minister of Greece relative to the whole remarkable transaction.

Athens, with no knowledge of local conditions and often with little or no information concerning recent discoveries or problems in archaeology. There was no continuity in the work of the School. Foreign scholars, though they admired the enterprise and the intelligence of the Americans at Athens, were perplexed by the instability and apparent lack of serious purpose in the management, and the friends of the School in America were convinced that the time had come for the appointment of a Director who should hold office for a term of years. The position of Director was accordingly offered to Dr. Charles Waldstein (now Sir Charles Walston), a graduate of Columbia University and at the time Reader in Classical Archaeology in Cambridge University, England. Combining the two positions and spending a few months each year in Greece, he retained the Directorship for four years. The first permanent resident Director was Professor Frank Bigelow Tarbell, then of Harvard, who however resigned after one year to accept a position in the new University of Chicago. In 1893 Professor Rufus B. Richardson of Dartmouth became Director, and to him is due the present organization of the work of the School. He was succeeded in 1903 by Dr. Theodore Woolsey Heermance, of Yale, whose untimely death in 1904 cut off a brilliant career. In 1905 the present incumbent, Dr. Bert Hodge Hill, then of the Boston Museum of Art, was appointed.

THE ANNUAL PROFESSORSHIP

In the earliest days of the School the staff at Athens consisted only of the Director, who was a professor in an American college and remained at Athens only eight months. As a permanent arrangement this was obviously unsatisfactory, and a Director with more lasting tenure was appointed, as has been said, in 1888. But in the previous years it had been clear that the annual directorate was not without its advantages. Athens is far from America, and the friends of the School are not always in touch with foreign lands. The students, being for the most part young and without wide reputation, could not speak with authority in the United States, but the Director, a man of some note among scholars and the friends of scholarship, could make his voice heard in public and in private among those whose interest in the School was of vital importance to its welfare. That the Director himself, by spending eight months in Greece, gained a livelier appreciation of the surroundings of the ancient Greeks, thereby adding new life to his teaching after his return, was also a fact worth considering. Moreover, the presence of an older man, an American whose permanent work was in America and who was familiar with American conditions, tended to keep the students, especially those who had been studying in Europe before coming to the School at Athens, from forgetting that their own future work would be in the United States, and from overlooking the difference between European conditions and those in their own country. These advantages were clearly worth retaining, and therefore there has been, since the first appointment of a more permanent Director, an Annual Professor whose title has varied more or less, but who has usually, in view of the fact that he is Professor of Greek in America, been called Professor of the Greek Language and Literature. The existing arrangement secures for the School the necessary continuity of effort and policy through the permanent

Director and close touch with institutions and conditions at home through the Annual Professor.

OTHER OFFICERS

As time went on it became constantly more evident that the Director, even with the help of the Annual Professor, could not be expected to oversee the care of the grounds, to engage servants and purchase supplies, to carry on negotiations with the Greek government and with private persons preparatory to excavations, to conduct excavations, to entertain distinguished guests, Americans and others, to attend court functions, and also to help the students in their work and do original work of his own. It was obvious that he must have assistance, and therefore, for nearly twenty years, there has been a Secretary or, as at present, an Assistant Director, who has always been a past member of the School, to relieve the Director of some of his burdens. The present incumbent of this office is Dr. Carl W. Blegen, whose researches in prehistoric archaeology have brought him well-merited distinction.

For many years the subject of Greek Architecture has engaged the attention of some of the best minds among both staff and students, the opportunities for research in this field being unusually attractive both to the practicing architect and to the archaeologist; and many of the most brilliant discoveries and studies which the members of the School have produced lie in this field. In recognition of the importance of this subject for the School a Fellowship in Architecture was established in 1903, supported at first by a grant from the Carnegie Institution, and later taken into the regular budget. If the incumbent remains for a period of years he becomes a regular member of the staff with a title appropriate to his rank. Dr. Leicester B. Holland, formerly of the School of Architecture of the University of Pennsylvania, now holds this position, having succeeded Mr. William Bell Dinsmoor, now of Columbia University. There is a special fund for the purchase of books in Architecture, contributed by friends of Dr. Heermance and bearing his name.

THE STUDENTS

With very few exceptions the students are graduates of American colleges, and indeed many have been working for a year or more as graduate students before coming to Athens. Until the year 1886–1887 no student had been a member of the School more than one year, but at that time two students remained to continue the work they had begun the year before, and since that time the usual period of membership has been two years, though many still go away after one year at Athens, and others stay for three years. There is, then, no prescribed term of residence, except that a student who wishes to be rated as a regular member must study in Greece or Greek lands for ten months. The only further requirement is that "every regular member of the School shall pursue some definite subject of study or research in Classical Literature, Art, or Antiquities, and shall present a paper embodying the results of some important part of his year's work, unless for special reasons he is excused from these obligations by the Director."

Since 1895 the nucleus of the student body has been formed by the two Fellows selected annually by competitive examination, except that a Fellow in residence may be reappointed without examination on recommendation of the Director and the Annual Professor.

Since 1903, as stated above, the subject of Architecture has been represented either by a Fellow or by a more advanced scholar, who devotes himself chiefly to research, but may be called upon to give instruction, and prepares for publication the drawings of the buildings and sites uncovered by the School's excavations. Of the remaining students many are the holders of fellowships or travelling scholarships from institutions in the United States. No distinction is made between men and women, except that as yet the School is unable to offer lodging to women. This is a condition that should speedily be remedied by the erection of the women's hostel already referred to; for although Athens is a congenial place of residence for women of American social traditions and training, and they can move about freely in city or country without the embarrassment they would encounter in Italy or France, for example, yet the absence of a home for them near the School, which is at some distance from the hotels and restaurants of the city, constitutes a distinct disadvantage for them as compared with the men.

For such a body of students regular lessons like those of undergraduates are needless and would be absurd. Nevertheless it has been found well worth while to conduct courses of lectures and readings at which all members of the School are ordinarily expected to be present. The Director and Assistant Director lecture at some ancient ruin, or in a museum, or on some subject connected with the topography of Athens; the Annual Professor expounds some classical author or speaks on some subject connected with ancient literature, history, or antiquities, and the students read papers embodying the results of researches of their own. In addition the School holds each year a few public meetings to which scholars and others who may be interested are invited, and the members of the American School are, in turn, welcomed at public meetings held by the schools of other nations. But most of the time of the students is spent in their own studies and investigations, at any rate after their first year of residence.

Such are the activities of the School at Athens during the winter, when the weather makes long trips undesirable. Yet even in winter short trips are of frequent occurrence. A Fiat camion and a Ford car, the School's inheritance from the American Red Cross, bring any part of Attica within easy distance for either large or small parties: Eleusis can be reached in an hour, or Deceleia, or Acharnae, or Salamis, or Cephissia; Phyle, Marathon, Sunium, Aegosthena, Dionyso, Rhamnus, Vari, Braurium, the Amphiaraeum at Oropus, can be comfortably visited in a day; and Aegina and other sites adjacent to Attica are also within easy range by car or steamer. Longer trips are, however, generally reserved for the autumn and the spring. In the autumn the School as a whole travels through the Peloponnese, visiting Corinth, Mycenae, Tiryns, Argos, Epidaurus, Sparta, Olympia, and other places, stopping in each place for hours or days, as may seem best. In the autumn, too, a trip is made to Delphi, Thebes, Chalcis, Thermopylae, the monasteries of Meteora, and other places in central and northern Greece. The automobile has immensely increased the facility of travel and the number of sites visited each year, since it is quite practicable to leave Athens in the early morning and sleep at Delphi or Sparta. And the Greek government generously allows our students half fare on the state railroads. In preparation for these

journeys the students are expected to read the descriptions of the various sites given by ancient and modern writers and to study the reports of excavations. Each student is expected to devote special attention to some one or two places or some particular monuments, so that he can discuss them on the spot for the benefit of the rest.

This system of student lectures is often fruitful of discovery. Thus at Delphi, where the French excavators have always welcomed our assistance in the solution of their problems, Washburn discovered the earlier erased inscription on the base of the famous bronze charioteer. And so again Miss Gardiner (Mrs. Whitmore) and K. K. Smith investigated the monument of Daochos the Thessalian, that containing the statue of Agias by Lysippus; and they found that the group as hitherto restored included a mediocre Roman statue, for which must be substituted a beautiful Lysippean figure recomposed from a head exhibited in the Museum, a leg lying in the basement storehouse, and a torso opportunely found at that moment in a modern stone wall. And once more, on a School trip, Dinsmoor made the observations which gave the solution of the Cnidian-Siphnian problem, for which the French School offered their *Bulletin* as the medium of publication.

For the Cnidian-Siphnian controversy was in full swing in 1909, when Dinsmoor visited Delphi. The marble treasury, containing the predecessors of the Maidens of the Erechtheum, had been reproduced in two slightly variant full size plaster models, one in the Delphi Museum, the other at the head of the grand stairway of the Louvre near the Victory of Samothrace; and it had, after considerable hesitation, been almost unanimously regarded as Cnidian. But the famous sculptured frieze, which so inspired the sculptor Paul Manship, was at that very moment being subdivided and assigned to three different buildings. In comparing the marble architectural fragments with the model, Dinsmoor found certain discrepancies of measurement which invalidated the plaster restoration; a careful inventory of all the marble fragments showed that they were of three distinct types, of which one could be identified as Cnidian on the evidence of inscriptions, the second could be referred to a foundation attributed with probability to Massilia, leaving for the third, which agreed best with the allusion in Herodotus, the name Siphnian. Each of these three buildings was recomposed on paper, from foundation to roof. The famous frieze, however, proved to be a unit, and it was not Cnidian; its members fitted, stone by stone, the Siphnian architrave and cornice. The next problem, that of providing foundations for the Cnidian and Siphnian treasuries, led to an investigation of all the treasuries at Delphi; the Siphnian foundation was clearly that always associated with the plaster model, but the Cnidians now received a rapidly disintegrating, and hitherto nameless, foundation of yellow limestone, which after this identification acquired a protecting tile roof. Incidental to this investigation was the location of the two successive treasuries of Syracuse, and the attribution to the older one of the peculiar oblong sculptured metopes hitherto assigned to Sicyon.

In the spring, when the students have learned enough modern Greek to enable them to travel easily, the trips are, as a rule, not organized by the School, but students travel in continental Greece, visiting places not

reached in the autumn or revisiting those which are of special interest; or they study the wonderful remains of pre-Hellenic civilization in Crete; or they cruise among the islands of the Aegean, inspecting the excavations at Delos carried on by the French School, the great collection of early vases in the museum at Mykonos, the ruins of Phylakopi excavated on the island of Melos by the British School, and the relics of ancient civilization at Thera which were unearthed by the German Hiller von Gärtringen; or they go to Asia Minor, where the cities of Pergamon, Priene, and Miletus have been excavated by the Germans, Ephesus by the Austrians (after Englishmen had excavated the great temple of Artemis), Assos by Americans, and Troy by Schliemann and Dörpfeld. The important American excavations at Sardis are still in progress and offer the travelling student much interesting material for study, and at Colophon work has been begun. The trip to Asia Minor is often combined with a visit to Constantinople, where the student of ancient art finds abundance of material in the rich museum, the student of less remote antiquity can devote himself to Byzantine architecture as seen in St. Sophia and other buildings, and to Byzantine painting, decorative sculpture, and mosaics, the last most remarkably represented in the church—now mosque—of Kahrie Djami; and the student of mankind is almost bewildered by the mingled mass of different types thronging the narrow streets and the great Galata bridge. Some students have extended their journey to Egypt, whence the ancients believed many elements of civilization came to Hellas and where Hellenistic culture had one of its most important centres. Travel such as this gives the student a broader outlook on history and helps him to connect antiquity with modern times.

During the European War the regular work of the School was necessarily suspended, it being impossible to send either students or professors to Greece in 1916, 1917, 1918, and 1919. The services of Mr. Hill and Mr. Blegen were at first placed at the disposal of the American Legation; and on the organization in 1918 of the American Red Cross Commission to Greece, the property of the School and the resident staff were by formal act of the Trustees made available for its work. The School building became the residence of the higher officers of the Commission, and Mr. Hill and Mr. Blegen were detailed to various important duties. The chief of the commission appointed by President Wilson was the Chairman of the School's Managing Committee, Professor Capps, and his successor in 1919–20 was Professor H. B. Dewing, who was appointed for that year the Annual Professor. Mr. Blegen also rendered important services to the Paris Peace Commission in connection with the intricate problems of boundaries and race distribution, and Mr. Hill in helping to put down the typhus epidemic in Macedonia; while Mr. Dinsmoor received a commission and was assigned to the staff of the American Military Attaché at Athens. Altogether the School did its part in the war creditably. To commemorate the hospitality of the School the members of the Red Cross Commission contributed a special fund for excavations.

ART AND ARCHAEOLOGY

EXCAVATIONS OF CLASSIC SITES

It is chiefly in the spring and autumn that excavations are carried on, though sometimes work begun in spring is continued in summer, and sometimes the work of the autumn does not come to an end until the rainy season has set in; but, generally speaking, the Director and Assistant Director are in Athens during the winter to conduct the winter work of the School, and in the summer months the students are travelling or studying outside of Greece.

In the paragraph of the Regulations already quoted, we find, as parts of the object of the School, "to aid original research in these subjects (Classical Literature, Art, and Antiquities); and to coöperate with the Archaeological Institute of America . . . . in conducting the exploration and excavation of classic sites." This sounds as if the founders of the School hardly expected it to conduct excavations independently of the Institute; but even in the first year of the School it became evident that "original research in these subjects" might call for excavation. Mr. Crow, who was investigating the Pnyx, the great assembling place of the Athenians, had to obtain the permission of the Ephor of Antiquities and dig some rather short and shallow trenches to settle questions relating to ancient foundations.

Excavation is, then, sometimes a necessary part of research—of an investigation which has not the discovery of new material as its chief end; but excavation of new sites primarily for the purpose of finding new material is also a legitimate part of the work of the School, not only as a part of the prosecution of original research, but also because excavation offers the students of the School a kind of training which cannot be obtained in any other way and which is invaluable to any one who is called upon to weigh archaeological evidence. Excavations have, therefore, been carried on by the School, not only because they increase and maintain its reputation alongside of the other foreign schools at Athens, but partly because they constitute an important division of archaeological research and partly also because the School, as a teaching institution, must give its students the opportunity to watch, take part in, and, in some measure, direct them.

The first real excavation undertaken by the School was at Thoricus, in Attica. It was known that a theatre existed here in ancient times, and in the spring of 1886 work was begun, under the direction of Professor F. D. Allen, in the hope of finding some evidence either for or against the existence of a raised stage in the Greek theatre of classical times; for the belief, founded on a somewhat perplexing passage in Vitruvius, that the Greek actors performed on a high stage, had recently been called in question by Professor Dörpfeld of the German Institute. The excavations at Thoricus, though they failed to settle the question of the stage—concerning which scholars are even now not all agreed—nevertheless laid bare remains of the most primitive type of Greek theatre (pp. 185, 186) known to us—a building without back-scene or stage buildings of any kind—and therefore of considerable importance for the history of the theatre.

In the following year (1887) the theatre at Sicyon (pp. 187, 188), not far from Corinth, was excavated. Here the foundations showed that the original "stage-building" had been altered; a

German Institute Photograph.

Thoricus: Theatre.

watercourse, similar to that in the theatre of Dionysus at Athens, encircled the orchestra, and an underground passage (further examined in 1891) leading from the orchestra to a point behind the front wall of the "stage-building," may have provided a means for the sudden appearance and disappearance of actors. A similar passage was found in the theatre at Eretria, a building of most unusual type in several respects (p. 189). Excavations were carried on there by the School in 1891–1892 and 1894–1895. The theatre at Corinth was also investigated by the School, and a fifth theatre,—that at Oeniadae in western Acarnania—was excavated in 1900 and 1901. These theatres were not among the great ones of ancient times, but they each added something important to our knowledge of the conditions of the ancient drama and, taken in conjunction with researches simultaneously carried on by American scholars from the point of view of the extant dramas, made the American contribution to the stage question next to that of the Germans in originality and comprehensiveness. Mention should be made of some interesting sculptures found at Sicyon, and of the foundations of a temple and a large gymnasium, some tombs, and also much jewelry and many fine specimens of white lecythi discovered at Eretria.

Of peculiar interest to students of the drama, though in this case no

German Institute Photograph.

Thoricus: Theatre.

theatre was excavated, was the excavation undertaken in 1886 at a place on the side of Mt. Pentelicus called Dionyso. Here were the deserted ruins of a church, the apse of which was so built as to utilize an ancient semicircular structure which, from an inscription still preserved on its face, was seen to be a choragic monument dedicated to Dionysus by Cephisius, son of Timarchus, of Icaria. Now ancient tradition has it that the cult of Dionysus, the patron deity of the drama, was first introduced into Attica at Icaria and also that Icaria was the birthplace of Thespis, to whom the invention of drama is attributed. The suggestion that Dionyso was the site of ancient Icaria had already been made but as yet it was only a suggestion. Professor Merriam, Director of the School, hoped that excavations would establish a proof, and in this he was not disappointed. Foundations of several buildings, including a temple, were uncovered, and many fragments of sculpture came to light. Among these were parts of a head of Dionysus of fine archaic art, a colossal archaic torso, three other torsoes, a relief showing Apollo seated on the omphalos with Leto and Artemis behind him, and a fine archaic stele closely resembling the well-known stele of Aristion in the National Museum at Athens. Inscriptions were found which prove conclusively that Dionyso is the site of Icaria and also that the cult of Dionysus was especially prominent there. The excavations, then, established the site

German Institute Photograph.

Sicyon: Theatre.

of the Attic deme of Icaria, confirmed the traditions relative to the cult of Dionysus and the early steps in the development of the drama, and also brought to light some sculptures which are interesting purely as works of art. These results were extremely gratifying, especially in view of the brief duration (six weeks) and small cost ($288.13) of the undertaking.

In the years immediately following the success at Dionyso, excavations were undertaken by the School at Stamata (1889), which was proved to be the site of the Attic deme Plotheia, Anthedon (1889), Thisbe (1889), Plataea (1889, 1891), Eretria (1891–92, 1894–95), Sparta, Amyclae, and Phlius (1892). The chief results of the work at Eretria have already been mentioned. At all the other sites results of some interest were obtained, and the students gained valuable experience.

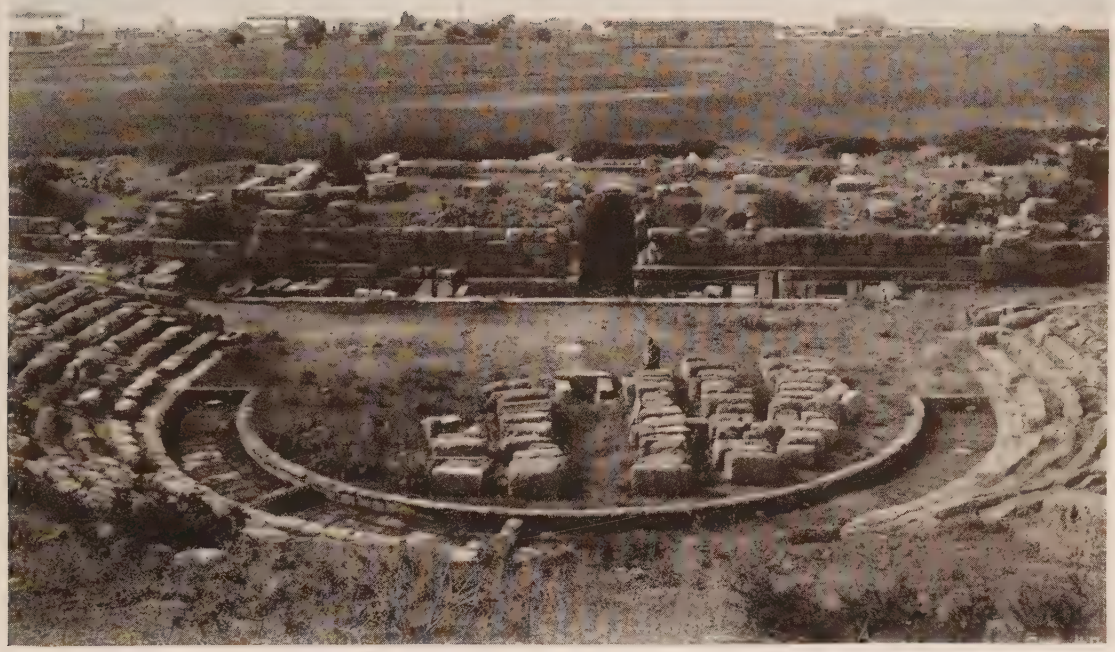
But the first excavations on a large scale were those carried on with the coöperation of the Archaeological Institute of America in the four years 1892–1895 at the Argive Heraeum. This was one of the most important sanctuaries of ancient Greece. It was the chief temple of Hera, the patron goddess of Argos; the years of its priestesses were cited, like those of the Olympic games or the Athenian archons, for the fixing of dates; and the statue of gold and ivory within the temple of the fifth century B. C. was the work of Polycleitus, one of the

German Institute Photograph.

Sicyon: Theatre.

greatest sculptors of that great period. The date of that temple, and therefore of the statue, is fixed with some approach to accuracy, for it is known that the earlier temple was burned in 424 B. C. and that a new building, designed by an Argive architect, Eupolemus, was erected shortly after. The site, on a spur of Mt. Euboea that projects into the plain some four miles from the ancient city of Argos, had been previously explored, and the remains of ancient walls there were plainly to be seen. There was every reason to believe that excavations at the Heraeum would have good results, though just what would be discovered no one could tell.

In the end all reasonable expectations were fulfilled. The foundations of two temples, one very archaic, the other of the fifth century B. C., were laid bare, round about them were remains of eight other monumental structures ranging in date from early in the sixth century B. C. down to Roman times. Among the sculptures discovered are pieces of the greatest value for the understanding of Greek art of the fifth century. The pottery offers an unbroken sequence from the early Bronze Age down through the classic period, showing that the site was sacred long before the traditional time of the Trojan War, and representing all the changes in ceramic technique and fashion which followed each other through the centuries. The bronzes, which number almost 6,000 pieces, and also



German Institute Photograph.

Eretria: Theatre.

the numerous terra-cotta figures, belong chiefly, though not entirely, to the period when archaic Greek art was slowly emerging from the darkness that followed the destruction of the pre-Hellenic civilization.

The results of these excavations have been fully published (see below) and cannot be described in detail here. Of the temple of the fifth century it will suffice to say that although only its foundations (p. 191), were found *in situ*, so many architectural fragments were discovered that the entire building could be restored in Mr. Tilton's drawing (p. 192). The sculptures discovered are of great interest. The great statue by Polycleitus, being made of gold and ivory, was of course destroyed centuries ago for the sake of its valuable materials, but fragments of the decorative marble sculptures of the temple were found in considerable number. The most striking of these—for it is probably from one of the pediments, though positive proof of this is impossible—is a very well preserved marble head, to which Dr. Waldstein, Director of the School and of the excavations, gave the name of "Hera" (Frontispiece). It is the head of a young woman, finely wrought and filled with the dignity and self restraint characteristic of the best Greek sculpture. Fragments of relief, evidently from the metopes of the temple (p. 193), show remarkable technical skill, great care in execution, and considerable originality

Eretria: Gymnasium.

of conception. Now the temple to which these sculptures belonged was built soon after 524 B. C., when Polycleitus, who made the great statue within the temple, was the chief of the Argive school of sculpture. Of all his works, which were chiefly of bronze, not one is now known to exist in the original, though copies made in Roman times, and for the most part done in marble, give us a fair idea of the general appearance of some of the more famous among them. What more natural than to assume that the sculptors who decorated this temple were the pupils and assistants of the great master to whom his, and their, fellow citizens had entrusted the creation of the priceless statue within? If that assumption is justified, these fragments help us to appreciate the art of Polycleitus and his school, and they prove that there was in that art far more life and movement, variety and invention, than is seen in the Roman copies from which our knowledge of the great Argive sculptor has hitherto been derived.

While the work at the Heraeum was in progress, trial excavations were conducted, in 1893, at Koutsopodi, the site of the ancient deme of Oenoe, but without notable result, and in 1895 the site called Koukounari was investigated. Here a sacrificial calendar of the fourth century B. C. was found, prescribing the offerings to be brought at certain times and the prices to be paid for them, but there were no further

Argive Heraeum: Foundations of the Temple.

interesting results. In the following year the excavations at Corinth were begun, which have continued, with interruptions due to wars and other causes, until the present time, and are not yet completed. The funds for these excavations were given in great part by Mrs. J. Montgomery Sears. But before describing these, it will be well to mention briefly the minor excavations of classic sites after 1895. At Oeniadae, in Acarnania, excavations carried on in 1901 at the expense of two members of the School, Dr. L. L. Forman and Mr. J. Montgomery Sears, Jr., laid bare a theatre, a bath, and some ship-houses. In the same year the cave at Vari, in Attica, was cleared at the suggestion of Mr. Weller and at the expense of students of the School, and in it were found reliefs, inscriptions, numerous small objects of terra-cotta, fragments of pottery, coins, and great quantities of lamps of various periods. At Halae, where Miss Walker and Miss Goldman conducted excavations at their own expense in 1911 and 1912, valuable vases and terra-cottas and some important inscriptions were found. In 1911, too, excavations were undertaken with a fund contributed by the University of Chicago at the request of Professor Buck to discover the site of the ancient Opus. Trials were made at several places, various foundations and small objects were found, and the site of Opus was determined. The excavations at Corinth are so important that they are treated separately in the following pages.

Argive Heraeum: Restoration in Perspective. *By Edward L. Tilton.*

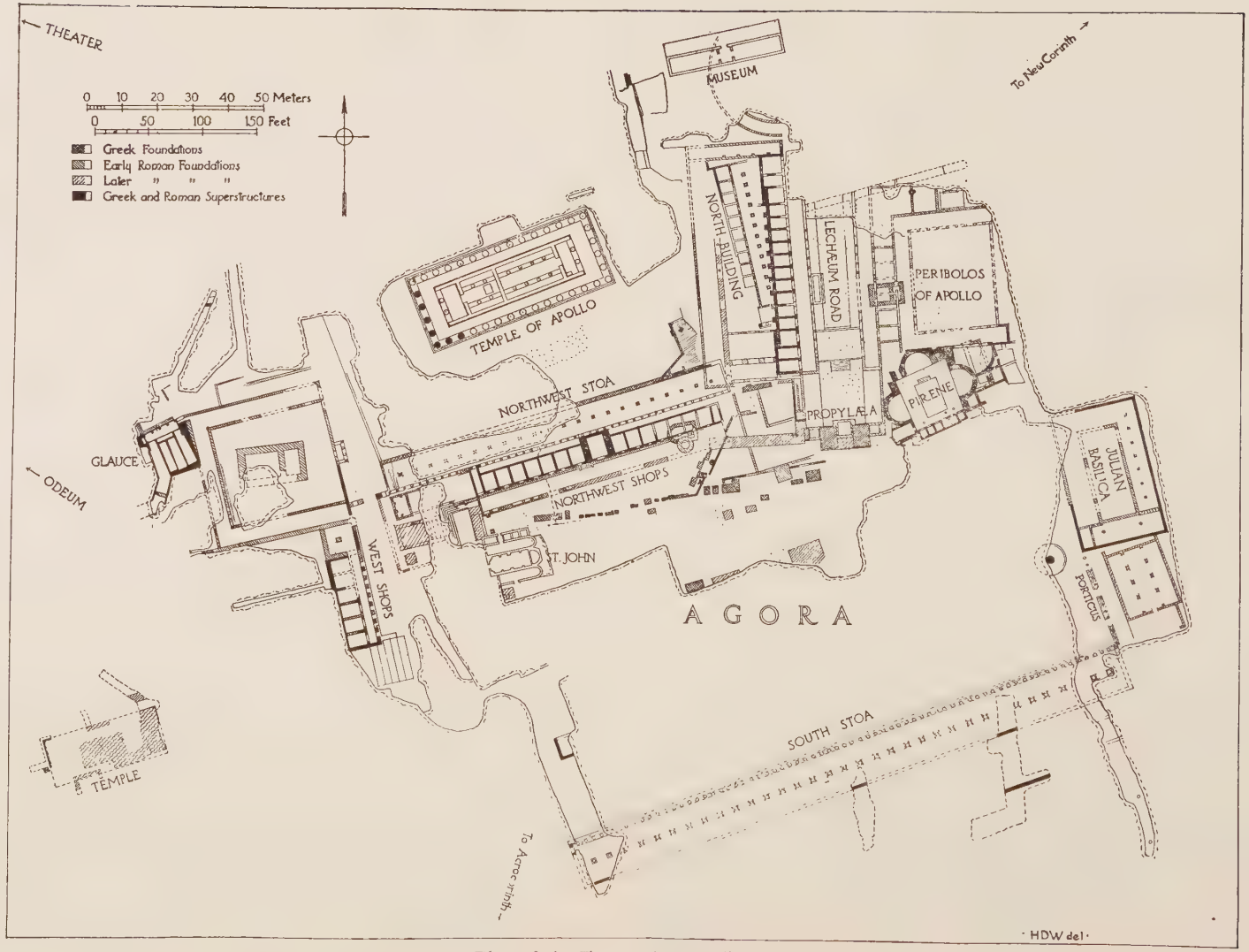
Head of Youth from a Metope of the Argive Heraeum.

THE EXCAVATIONS AT CORINTH

The greatest enterprise in excavation undertaken by the School is at Corinth. Situated at the end of the isthmus which connects the Peloponnese with central Greece, protected and strengthened by the steep and lofty Acrocorinthus, which was, before the invention of heavy artillery, an almost impregnable citadel (p.196), and profiting by the commerce of the Saronic Gulf as well as of the gulf to which its own name was given, Corinth was one of the greatest and richest cities of ancient Greece. Destroyed by the Roman Mummius in 146 B. C., it was restored somewhat later and continued to be for centuries a place of great importance.

Before the excavations the only visible monument that marked the site of the ancient city was the great Doric temple (p. 219), of very early, though unknown, date. It was not even known what god was worshiped there. The existence of this temple proved that the destruction of 146 B. C. was not absolutely complete, and that there was some hope of finding remains dating from the great days of Greece, but it was, of course, probable that most of the buildings and minor monuments discovered would belong to later times. This has proved to be the case, though, as will be seen, the remains of the classical Greek period are peculiarly interesting.

It was a great undertaking to lay bare the area of a large city, and no little time had to be devoted to tentative and exploratory digging. The



Plan of the Excavations at Corinth. *By H. D. Wood.*

work has been carried on for seventeen seasons in the period from 1896 to 1916 and is still incomplete. A chronological record of it would be difficult to understand, unless it were made unduly long, and therefore what follows is a description of results, arranged in topographical, rather than chronological, order.

The city lay at the north foot of the Acrocorinthus upon two extensive natural terraces, 50 to 100 metres above sea level and 30 to 80 metres above the fertile plain that stretches along the Corinthian Gulf, here only two kilometers distant. Where the upper of the two terraces formed a deep bay in the side of the hill and the ascent from the lower was thus most gradual, was the Agora, about which centered the commercial and political life of the ancient city.

The excavations have been concerned almost exclusively with the Agora itself and the districts immediately north and northwest of it, in dependence upon the description of Pausanias, the traveller of the second century A. D., by whom most of the objects judged worthy of mention were seen about the Agora and along roads leading from it toward Lechaeum, one of the two harbors of Corinth, to the north, and toward Sicyon, its nearest neighbor and rival, to the northwest.

The area excavated lies in the midst of the group of hamlets which constitute the modern village of Old Corinth. From its central square, marked by a venerable plane tree of great size, we turn towards Acrocorinthus, pass the modest Museum of antiquities (at present an overcrowded storehouse) and after a minute's walk reach a broad street with raised sidewalks, paved with slabs of hard pinkish-white limestone taken from an Acrocorinthian quarry (p. 196). The smooth gutter seen at the inner edge of the sidewalks received water from the eaves of colonnades that once lined the street. Of these, the foundations and much of the stylobate remain in place, with (on the west side of the road) a few column-bases.

This street is mentioned by Pausanias as the Straight Road toward Lechaeum. It has been traced more than 300 metres northward, in numerous pits sunk in the gardens below Plane Tree Square; and doubtless extended actually to the edge of the terrace that overlooks the plain. The road did not have one continuous slope, but was interrupted by steps at intervals where the slope was steepest. It was thus, of course, closed to wheel traffic, as is testified also by the complete absence of ruts in the pavement.

At the head of the street, and extending quite across it, are two paved platforms: the lower is four steps above the road; the second, 2.10 m. higher, was approached by stairs enclosed between *podia* projecting from it. (Earlier stairs, also, which reached the whole width of the street, may be seen within the western *podium*.) The steps, where not destroyed, are now largely concealed by a stairway-ramp constructed in the middle ages to make the approach easier, and, probably, to dispose of awkward masses of material from ruined Roman buildings.

Beyond the upper platform rose the Propylaea, the gateway into the Agora. In its first form it was a long shallow building, of five arches, the central one widest and deepest, constructed of *poros*—the soft smooth-grained travertine yielded by many quarries in Corinthia and exported largely in antiquity, as at the present day. This portal was replaced in the first century A. D. by a regular triumphal arch in marble,

Photograph by F. Boissonas & Co., Geneva.

Corinth: Lechaeum Road and Steps to Propylaea from north; at right, Shops and Foundations of Basilica; Acrocorinthus in Background.

which in turn later suffered one or two remodellings. Of the marble-faced arches only the foundations and a part of the core of the piers remain; of the *poros* gateway a little of the actual façade may be observed. When Pausanias saw the arch, in the second century A. D., it was surmounted by two gilded bronze quadrigae: of Helios, the Sun, and of his son Phaethon. When the stranger coming from Lechaeum looked for the first time up this stately street, lined with marble porticoes, to the great arch with its gleaming chariots and the grey acropolis towering beyond, the impression must have been memorable indeed—even upon the visitor who had come solely to waste his substance in the expensive pleasures of luxurious Corinth.

The more western of the colonnades that flanked the upper end of Lechaeum Road served as portico to a row of sixteen small shops of excellent, solid construction. They were open at the front nearly their whole width, to admit light and allow display of wares for sale, quite like the stalls alongside old streets in this part of the world today. Their heavy rear wall supported a filling of earth and débris which brought the level behind even with their top.

Upon the terrace so formed, and as an upper story above the shops, was built a Basilica, 23 metres wide and 65 metres long, having its main hall of the usual form, 46 metres in length, with three rooms at either end. The central of these at the north—unfortunately completely destroyed—was presumably the Tribunal; one, at least, of the rooms at the south was a vestibule, the entrance to the building having been at that end, where alone the grade permitted.

This Basilica, which was wholly of *poros*, dates from a time toward the end of the first century B. C., not very long, probably, after Corinth was made the capital of the Roman Province of Achaia in 27 B. C. It was afterwards enlarged, to 70 m. by 27.50 m., and completely rebuilt in marble, with the plan somewhat changed. The floor level was raised about half a metre; the end rooms were eliminated; and the great hall had now, between the aisles and the central area, colonnades of sixteen by four columns instead of the eleven by four of the original building; the shops received vaulted ceilings of concrete; and the marble colonnade of the Corinthian order, of which we have already noted the stylobate and certain bases *in situ*, replaced their original portico beside the Lechaeum Road.

Little enough remains of the superstructure of either basilica—of the earlier, one Ionic column base and two sub-bases at the south end of the hall; of the later, a part of the west wall where it was cut in the rock of the hill of the old Temple of Apollo. The foundations, however, of both are distinctly imposing as they stand.

Underneath the Basilica, at a depth of about 4 metres, are considerable remains of a Greek Market, dating from around the end of the fifth century B. C., which is designated on the plan as the "North Building." The site for it was cut out of the rock and clay of the east end of the Temple Hill, the foundations being generally a single course of stone set into the clay. The south end of the building was a Doric stoa, of which one drum of the westernmost column is still *in situ*, with a piece of stylobate.

This colonnade was 4.5 m. deep, separated by a light partition from the main hall of the building, which extends thence 40.5 m. northward. Ranged down the length of it was a

row of thirteen columns at intervals of three metres. For nine of them the square bases remain in place, and on the southernmost of these an unfluted column-drum, 0.625 m. in diameter, 0.25 m. high. This base and drum, untouched by the builders of the first Basilica, was cut in half when foundations were laid for the second Basilica, and then ages later halved again when the Byzantine owner of Shop VIII dug him a cellar behind his shop. The western wall of the hall, parallel with the axial line of the columns and 3.25 m. distant, was in its southern part simply a facing for the scarped rock, but for the remaining 35 m. of its length was the front wall of a space 2.8 m. to 3.6 m. wide, which seems to have been divided into ten shops or stalls. The face of the wall is broken into panels by narrow pilasters of very slight projection, two panels between every pair of doors. The panelled wall was carried up only 1.35 m., while the pilasters went on as doorposts and pillars to architraves (or lintels) that supported the ceiling. The upper block of each panel was hewn out into a rectangular tank and this waterproofed with a lining of cement. Thus each little shop had at either side of its door a sort of display window, with a tank (or box—for the waterproofing *may* have been intended to keep moisture out) containing something which the imagination of the reader must supply—perhaps live sweet-water fishes, or ferns and flowering plants, or olive oil, or possibly nuts, or dried fruits.

Of the eastern part, the front, of this building we can know nothing positively, since the Roman shops that look out on the Lechaeum Road occupy the same area at a level about one metre deeper. It may be guessed, however, that the colonnade of which we have a little at the south extended also along the east side of the building, and perhaps across the north end. Architrave blocks found well preserved in foundations of the Basilica show that the columns, whatever their number, were spaced at 2.12 m. Since this can have no relation to the spacing of the interior columns, it is probable that there was a wall separating the main hall from the eastern portico, as from the southern.

This structure doubtless shared the fate of the other buildings of Hellenic Corinth when, in 146 B. C., the Roman Consul Mummius destroyed the city in punishment for its conspicuous share in the final hopeless struggle of the Achaean League against the power of Rome. Toward the end of the century of desolation that followed, or immediately after the re-founding of the city, what then remained of the old Market above the metre of earth that had accumulated upon its floor was occupied in a humble way, as is witnessed by a few slight walls, two areas of flagging, and a stone tub, buried when the Basilica was built.

On the opposite side of the Lechaeum Road, partly underneath, partly behind, the colonnade bordering the street, is the foundation, of most excellent workmanship, of a small Greek Temple dating apparently from the fifth century B. C. Its plan shows a square cella and a pronaos which would most naturally be restored as *distyle in antis*. On the top of the foundation accurate setting lines indicate the exact position of the superstructure. But of this not a stone remains. For some reason the temple was removed even during Greek times, and there was constructed where the cella had been a sort of baldachin having four square pillars, the two western joined by a

light wall. Within stood doubtless the image of a god, or some sacred object. Judging by the profile of the bases of the pillars, which alone remain, the baldachin is to be referred to about the third century B. C.

At the front of the temple there is a Greek pavement of large smooth pebbles set in cement, with a narrow frame of cut stone. To right and left of the temple are foundations of pedestals; at the south a square stone water basin of high antiquity, to the north parts of an extensive floor of waterproof cement. In the earth hereabouts are potsherds of all classical periods. A little to the northwest two groups of perfectly preserved geometric vases were found (Published *A. J. A.* IX, 411–421, Pls. XI–XVI); and here also, in a late wall, was found an excellent marble copy of a noble statue, doubtless of a goddess, from the fifth century B. C.

The temple and shrine are believed probably to have been sacred to Apollo for the reason that a much later court surrounded with colonnades, lying above and immediately to the east of the temple, is known from the description of Pausanias to have been the "Peribolos" of Apollo.

The Peribolos is a quadrangular court measuring 29 metres (north to south) by 22 metres, enclosed on all sides by a marble Ionic colonnade slightly under 5 m. deep. The stylobate is of hard pinkish limestone like that of the pavement of the Lechaeum Road and has before it a gutter cut in the same material. Both the court and the porticoes were originally unpaved; in the former a thin marble pavement was afterwards added, and in the latter a figured mosaic. Though there is nothing of the colonnade in place above the stylobate, abundant material has been found for a complete restoration of the order, which is of marble, 4.65 m. high. A well cut inscription on the frieze gives us some information concerning the dedicator of the porches, too little, however, to identify him; he belonged to the Roman patrician gens Aemilia.

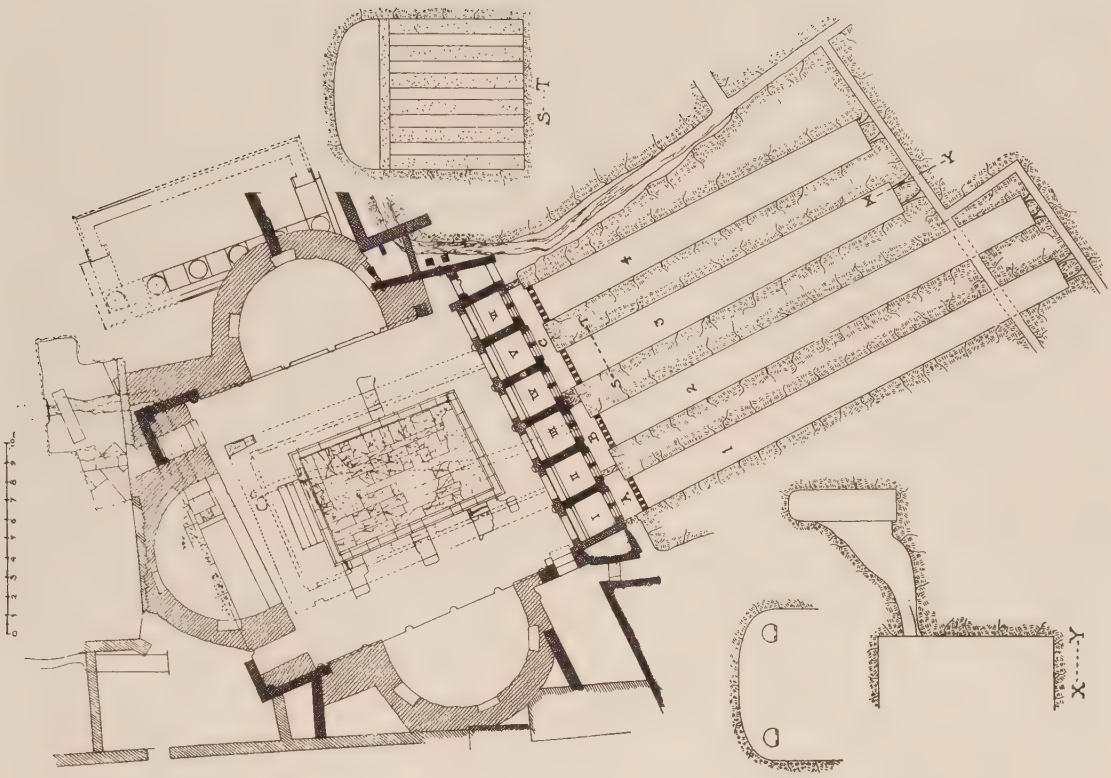
Corinth: Statue of a Goddess. After an Original of the Fifth Century, B. C. From East of Lechaeum Road.

Corinth: The Fountain Peirene. Façade and Court, from the north.

According to Pausanias there was in the Peribolos a bronze statue of Apollo, and a painting representing Odysseus slaying the suitors of Penelope. If traces of this painting survive at all they will be on the wall of the eastern colonnade, which has not yet been excavated.

Opening into the south portico of the Peribolos is an apse 12 m. in diameter and 7.5 m. deep, which had across its front (in place, that is, of the rear wall of the portico) a row of four columns. Since its walls are too light to carry vaulting its roof must have been of wood. This apse suffered from the greater importance of the fountain Peirene. It was thrust off the axis of the Peribolos in the first place, because the walls of the court of Peirene did not leave it room; and when, in the second century A. D., that court was remodelled, the apse lost its semicircular form and a considerable part of its area.

From the south portico of the Peribolos of Apollo one went down directly to the famous fountain Peirene by a flight of twelve easy steps (their total "rise" was 1.70 m.). A second similar entrance led down from the eastern of the colonnades at the head of the Lechaeum Road. Entering by either stairway we find a marble-paved court about 15 m. square, with massive apses on three sides and on the south, opposite the entrances, a row of six arches through which we look into as many low square chambers (p. 201).



Drawn by W. B. Dinsmoor.

Corinth: Peirene—Plan of Court and of Underground Chamber (I-VI), Basins (A-C) and Reservoirs (1-4) S-T and X-Y; sections at quadruple scale.

These Pausanias describes, fitly, as "chambers made like grottos, from which the water flows into a fountain in the open air." That fountain is seen in the middle of the court: a quadrangular sort of basin 6 m. wide and 9.5 m. long, sunk 1.2 m. below the general level, with a marble floor bordered by a white stone gutter. Water poured into this through spouts (at one period they numbered fourteen) out of a broad, covered, cement-lined channel that passes along three sides of the basin, drawing its supply from two of the chambers (II and V on the plan). The gutter discharged, near the northeast corner of the basin, into a deep drain, leaving the "basin" normally dry.

The court itself, with its three large apses and the quadrangular basin in the centre, belongs to the second century of our era; the two columns and three bases in line with them set out a little before the main façade were placed where we see them in the fifth or sixth century A. D.; the façade itself—six semicircular arches with engaged columns between, in *poros* stone,—dates from the reign of Augustus; the chambers immediately behind, into which we look through the arches, have walls of the fifth century B. C. and are decorated at the back with a delicate Ionic order of the third century; farther in still, the three narrow, deep basins and behind them four cemented reservoirs with elliptical vaulted ceilings were doubltess constructed in the ambitious days of the Cypselid tyrants. The fragment of a marble column laid

horizontally under the fourth arch of the façade dates from well down in the middle ages, when a tiny chapel occupied a corner (the southwest) of the court and this itself was a small Christian cemetery; the cemented water channel seen at the east edge of the floor of the court carried water down toward the village square until the end of the nineteenth century; the channel beside it, cut in sundry marble blocks (columns, architraves and cornices) did the same about a thousand years earlier.

In its earliest preserved form Peirene consists of four reservoirs, cut in the native rock (clay), 2 m. wide, separated by clay walls about 1.8 m. thick. The height at the front is about 2.5 m., diminishing toward the rear as the floor rises; the two eastern reservoirs are 20 m. long, the western 25.5 m. All are lined throughout with a hard waterproof plaster made of a brown bonding material (a natural cement, doubtless) and fine pebbles. A very large part of the original plaster is preserved, but there are also considerable repairs.

Each reservoir has at its inner end, near the top, two funnel-shaped supply holes (the easternmost has by exception only one) through which flowed water brought by a tunnel likewise cut in the clay and rock. This is about 0.60 m. wide and generally 1.75 m. or more in height. It is lined with cement across the floor and up about 0.30 m. on each side. At the openings through which water was discharged into the reservoirs a little dam 0.05 m. high was made, to assure a flow of clear water, sand and silt remaining on the floor of the tunnel. The principal source of the eastern reservoirs is about 150 m. distant, to the southeast, where the tunnel ends against a ledge of conglomerate rock from under which comes a copious flow of water. Shortly before the end a branch leads to a second less copious spring. It has been possible to follow the western tunnel to a point only 100 m. from the reservoirs. Each tunnel could be reached through a passage from its end of the front of the fountain. The two sources together supply normally about 3,000 gallons the hour in midsummer. In 1919 after a very wet winter and a thorough cleansing of the tunnels, the flow measured even 8,000 gallons the hour. The capacity of the reservoirs may be reckoned at from 100,000 to 120,000 gallons.

Extending across the front of these are deep draw-basins 0.90 m. wide, the smaller eastern reservoirs having together one basin while each of the other two has its own. As may be seen from the plan, the supply could be turned at will into any reservoir, so that it was possible to clean the fountain by installments, two basins remaining in use while the third, with its reservoir or reservoirs, was emptied and cleansed. The front wall of the draw-basins was finished at the top with a plain coping of slight projection; the rear walls, separating them from the reservoirs, are of the same height as the front. Instead of being solid partitions (with only a hole to let the water through, that could be plugged at need) they are plain stone grilles with five openings. Consequently the draw-basins could not be emptied separately from their reservoirs. The front wall of the basins was, from the outside, of course a sort of parapet. Over it water was drawn in jars—witness the deep wearings—by persons standing where now the six chambers are, behind the Roman arches. The drain required by this extensive system with its abundant and varying flow of water has been traced for some 200 m. from the north

side of the court, but the necessary separate direct connections of the three draw-basins with it, which must have existed, cannot now be found without destroying work of good Roman periods. For present practical purposes, therefore, a later drain underneath the court has been cut down to the required depth.

Above the basins and the area before them was an overhanging ledge of fine conglomerate rock, that forms the next stratum above the clay, which has here been completely cut away. The rock was doubtless supported by pillars and served as the roof of the portico of the fountain. In the course of time this was divided into six rooms by means of the well-built partitions that still survive. These are severely plain, with the outer ends finished as an *anta* having a very simple moulded capital. It is not clear whether the old draw-basins continued now to be used or were superseded by new ones within the six chambers. This seems certainly to have been the case in the last principal Greek period, when the delicate Ionic columns and *antae* with their entablature were set upon the old parapet of the draw-basins; for they are quite unfinished behind and are cut at the sides to receive stone slabs filling the intercolumniation. They form thus the ornamental background of the chambers, within which the water must now have been. Nothing survives, however, to show the details of the arrangement. At some later time, when the intercolumnar slabs were no longer in place, water appears again to have been drawn over the old parapet, beside the Ionic columns. A most probable time for this is the century of desolation, 146 to 46 B. C., and the earliest years after the refounding of the city.

There is little to indicate the appearance of the area before Peirene in Hellenic times. It may well have been simply an open square, mostly at a level some steps higher than the entrance to the fountain. In the latter part of the Greek period a shallow Doric hexastyle stoa faced it on the east (p. 204). The scanty remains of this building may be seen in the apse of the Peribolos of Apollo and in two rooms just south of that apse.

Not long after the refounding of Corinth the old simple façade of Peirene was masked by the *poros* wall we now see. A parapet with a moulded top was built along the front of the chambers, and these were made definitely draw-basins. Upon the parapet was set a series of stone arches and between these on projecting podia engaged Doric columns, supporting an architrave, above which are engaged Ionic columns. This two-story wall was carried around the other three sides of a quadrangular court, measuring about 17.5 m. north to south and 15 m. in width. Stumps of the whole series of half-columns may be seen *in situ*, with several shafts having more than half their original height, along the east and west sides of the court. The base of the north wall is preserved entire, or nearly so—well seen in the north apse—while under the stairs of the eastern entrance to the existing court there is a column of this wall and just to the east a bit of the stuccoed wall itself preserved to a height of 1.9 m.

Evidence may be seen here too of the fact that the walls of the quadrangle just described were, without being changed in plan, revetted with marble. At the time of the construction of the two-story *poros* façade about the court, or more probably at no great interval thereafter, an open-air fountain was

Restored by L. B. Holland.

Corinth: Peirene in Hellenic Times. Front of the Fountain with Corner of Neighboring Hexastyle Stoa.

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built within the court, with its floor about 1.5 m. lower than that of the court and its walls about parallel with those of the court. A broad water channel, drawing its supply from the second and fifth chambers, was carried along three sides of this open-air fountain, delivering water through eleven or more spouts. The fountain seems to have been entered by steps at its northern corners. Probably towards the end of the first century A. D. the walls of the court were revetted with marble, but apparently no change was made in the plan. In the second century, however, probably by Herodes Atticus, the whole court was remodelled, getting the plan seen today. Massive apses, roofed with half domes, were added on three sides, the north line was drawn in, making the court nearly square, and the open-air fountain was also shortened by the insertion at the north end of a broad flight of four steps. Square podia were built filling the corners right and left of the steps, the floor was raised about 0.25 m., and paved with marble within a white limestone gutter. The spouts were now brought up to the top of the water-channel.

In connection either with this remodelling or with the earlier renewal in marble, the arched openings of the principal façade were narrowed so as to allow space enough between them for blind arches equal in width. There were now, that is, eleven arches where in the *poros* arrangement there had been six. The greater number of the marble pilasters that separated the arches are *in situ* still, though broken off. A very few fragments of blue marble voussoirs of the arches have been found. With the reconstruction in marble the front walls of the chambers were reinforced in bricks and cement, their waterproof lining renewed and repaired, and their side walls decorated with paintings of Mediterranean fish swimming in dark blue water. The paintings are best preserved in chamber IV.

The marble floor of the three apses rises one step above that of the court; their walls were revetted in marble, of which a little is still in place, and they were roofed with half domes. In the wall of each apse are three niches for statues. A statue basis found here in Peirene bears a dedication by the Corinthians in honor of Regilla wife of Herodes Atticus. From this it has been inferred that it was he who paid the bills for this most ambitious redecoration of the court. In the niches may have been set portraits of members of Herodes' family—as in his exedra at Olympia. There were two approaches to the fountain from the north: an eastern directly out of the south portico of the Peribolos of Apollo, a western from the colonnade alongside the Lechaeum Road.

During the next two centuries there appears to have been little change in the fountain. At some time after the supply channels had pretty well filled up with sand and gravel, several spouts on each side were supplied by a lead pipe from a dam back in the tunnel at the west side of the fountain. The eastern tunnel was also dammed—both of course in order to have the water delivered under greater pressure. During these later Roman generations the chambers under the ledge seem to have been no longer used as drawbasins, the water from them being discharged through spouts into shallow marble basins.

We next see the fountain remodeled by setting a row of marble columns—the one capital *in situ* is of the Corinthian

order—across the principal façade, placing short architrave blocks (wrong side up for choice) upon them reaching back to the wall, as "outlookers," and then laying upon these regular architraves from column to column. On the exposed end of the outlookers was carved a palm branch, and on the face of the longer architraves, after an earlier inscription cut in Latin characters had been chiseled away, a new honorific inscription was painted in red. The preserved fragment of this may be seen on the step of the north apse. When these changes were made the court was repaved with thin marble (which appears to have come from the revetment of the walls), and the quadrangular open-air fountain was changed to a round basin, from which the surplus water flowed off, toward the northeast, in a gutter cut in the floor of the court. All the materials for these repairs and changes come from buildings of Roman date—the eastern of the two columns *in situ* is from the Peribolos of Apollo—combined as may be. The style of lettering would indicate that the red inscription was painted in the fifth century, or perhaps the sixth, of our era. At the very end of the fourth century Corinth was visited by a most disastrous earthquake, after which very probably such building material as we see in this last Peirene would have been available.

The artificial, elaborate character of the court and chambers and reservoirs and tunnels should not mislead one to imagine that Peirene is essentially an artificial fountain. The contrary is true; it is, and must always have been, a copious natural spring. Here, under a ledge of conglomerate rock, water gathering upon the impervious stratum of clay flowed off exactly as it does today at numerous points under the bluff at the lower edge of the village and again down near the sea, in both which places the natural formation is quite the same as at Peirene—a stratum of conglomerate or limestone or sandstone resting upon a thick stratum of hard clay.

So, in spite of its present appearance, this Peirene is a *spring* of immemorial antiquity. It is thus not impossible that the traditions concerning Peirene apply to this very spring, though it is perhaps more probable that they have to do rather with the less copious source up on the Acrocorinthus, which Strabo calls Peirene and Pausanias states he was told was the real Peirene given to Sisyphus by the River God Asopus, from which the water was believed to flow down to the fountain in the city.

Passing from the Lechaeum Road through the Propylaea we enter the Agora, which stretched one hundred and fifty metres to the west, to our right, and sixty-five metres to the east, with an average breadth from north to south of about ninety-five metres. In the days of the city's highest prosperity this whole area was paved with marble in two main levels. The lower level sloped very gently upward from the Propylaea to the eastern end and along the north side of the Agora, while the upper area was a terrace thirty metres wide along the south side and somewhat broader along the west end. The greatest difference in elevation between the two areas was four metres, but at the dividing line the rise from the lower to the higher level was from two to two and a half metres only. In earlier times the territory of the Agora was subdivided into more than these two terraces, the earliest arrangement naturally following most closely the original configuration of the ground.

Corinth: Basilica at east end of Agora, from the north: A-A-A, outer walls; B-B-B, inner walls; C-C, later walls across basement of eastern and western aisles.

Of the whole area of the Agora rather less than one third has yet been uncovered, of its periphery and the buildings which bound it a little less than one half. The pavement already mentioned lay from three to five metres below the surface of the ground and some early Greek levels were as much as thirty-four feet deep. The principal section of the Agora laid bare is the northern part westward from the Propylaea, but at the eastern end, somewhere near which one interpretation of the words of Pausanias would place the Temple of Octavia, excavations were carried on in 1914–1915. In this campaign a very large building was laid bare, evidently bounding the Agora on the east. It is a monumental edifice running north and south with a length of forty and a breadth of twenty-five metres. The foundations, consisting of an inner and an outer rectangle, are extremely solidly built of large well-worked blocks of *poros*. The plan is that of a simple basilica. The walls uncovered, though at one point preserved to a height of six courses, really belong to the substructure of the building. The space between the inner and outer rectangles was a basement aisle running around the four sides of the structure. Lighted by small windows (of which two on the east side are still preserved), this aisle was at some time decorated with white marble revetment and with colored marble pilasters, while a row of columns stood in the

Corinth: Statue of the Emperor Augustus; above life size. Found in "Julian" Basilica.

long axis. The eastern aisle is well preserved, but the western part of the building has almost entirely vanished. Nothing of the ground floor remains save the sockets cut for the heavy beams by which it was supported. The inner wall is very thick and doubtless carried a stylobate upon which stood columns.

Within the building were found one good block of a stylobate, two Corinthian capitals of large dimensions, and several blocks of architrave and frieze combined. We may thus with fair probability restore a colonnade of the Corinthian order about a large roofed hall, lighted from windows in a clerestory above the columns.

Numerous curved architrave blocks found in and about the building cannot be assigned to it, since it is in plan wholly rectilinear; but they are too heavy to have been brought from any considerable distance. One conjectures, therefore, that there may have been an apse at the north end of the building, containing in this case the Tribunal of the Basilica. A road and some small private houses need to be removed, however, before excavations can proceed in this direction.

The Basilica is made noteworthy by the sculptures found within it. Apart from three torsos—an early imperial copy or adaptation of a Greek semi-draped male figure, possibly a deity in its original form, and two men in armor, one of them wearing the cuirass of a commander who had won the honor of a triumph—there were four imperial portrait statues in heroic size, which take prominent rank among provincial Roman portraits.

One is clearly Augustus, fully draped in tunic and toga, of which a part is drawn over the head in sign of his office of Pontifex Maximus. This statue is preserved except for the feet and the hands. Another is an unusually well preserved nude statue of a youth, so closely resembling Augustus as to be most probably one of his grandsons (since he had no sons). There is likewise a second youth, of which only the head and chest are preserved, of precisely the same type as the first, also

nude with only the folds of a chlamys on the left shoulder. This youth is of a somewhat different physiognomy from the first, but might easily be his brother. Finally there is an almost perfectly preserved head, apparently of the Emperor Tiberius, an exceptionally fine piece of portraiture, unflattering enough to satisfy even Tacitus. Tiberius is represented unshaven, in sign of mourning.

Because of the presence of these portraits, and to distinguish this Basilica from that beside the road to Lechaeum we have ventured to call the building the Julian Basilica.

A substantial building, standing at a higher level than the Basilica to the south, occupies the rest of the east end of the Agora. Its purpose is unknown. On the side toward the Agora it is flanked by a shallow marble colonnade of the Ionic order.

Over against the junction of this colonnade with the Basilica stands a monument consisting of a circular podium (of which only the lowest courses are in place) from the centre of which rose a shaft over two metres in diameter. Of its original height and of what stood upon it there is now no

By H. D. Wood and L. B. Holland.

Corinth: Reconstruction of section of the Agora.

Corinth: Pillar with colossal figure of Barbarian. From upper order of "Captive's Façade."

indication. The monument dates from not earlier than the second century B. C. Close beside it is a small pit cut in native rock; this contained a mass of pottery, all of it, curiously, dating from an early prehistoric period.

The Agora is bounded on the south by a great stoa which had 71 Doric columns on the front and 34 Ionic columns in an interior row. It is approximately 164 metres long. Judged by its architectural and masonic character it dates from approximately 400 B. C. in its original form, though it was evidently restored when Corinth was refounded. Only the two ends of this colonnade have been uncovered.

West of the Propylaea, upon a heavy foundation of concrete carried down to hardpan, stood a high wall decorated with a two story façade of Parian marble in the Corinthian order. The columns, set out about eighty centimetres from the wall, supported an elaborately ornate entablature: architrave with three fasciae, separated by carved rope and bead-and-reel, and surmounted by a carved leaf-and-tongue moulding and plain fillet; frieze bearing in its principal field a pattern of lotus and palmette—a faraway echo of the exquisite "honeysuckle" of the Erechtheum—crowned by a carved bead and egg-and-dart moulding; dentilled cornice which on the corona presents an elaborate floral pattern in flat relief with egg-and-tongue moulding and plain abacus. No complete column shaft is preserved, nor has the base of one of these columns been identified, but from the size of the members we have we may judge that the total height of the column and entablature was about six metres. In the second story the places of at least four of these columns were taken by colossal figures of barbarian captives.

They stood upon bases decorated in high relief with symbolic or semi-real scenes after battle: Victory adorning a trophy, a captive beside a heap of spoils, a "native" standing at the knee of his motherland, who seems to be mourning for her lost freedom. Two bases are preserved and parts of four colossal figures. Two are of women of whom only the heads, surprisingly well preserved, remain. Of the two men one is practically complete, the other preserved from the thighs up. They wear trousers after the strange manner of their country, a very full long-sleeved tunic, a cloak held by a large round brooch, and a soft, pointed cap. Their hair falls in long ringlets to their shoulders. Standing in an easy attitude, weight on one foot, with their arms folded, they are in truth monuments of resignation and patience.

At the back of these figures square pillars with Corinthian capitals carry an entablature similar to that of the lower story but about one third smaller. The cornice here is of greater overhang than the lower one, with relatively plain corona, but having the soffit of the overhang decorated with modillions and coffers. This upper entablature breaks back at two points into semicircular bays, beyond which the frieze is without carved ornament. The pillar-capital to which the back of the head of the better preserved captive fits has a trapezoidal abacus of a shape suiting it to carry the curved epistyle at the east end of the western niche; the other existing capital has a square abacus and supported therefore straight pieces of architrave. A preserved bit of raking sima shows that there was a gable over the portion of the façade between the niches.

This elaborate and somewhat pretentious structure served in effect as the south face of the Basilica west of the Lechaeum Road, though the actual south end of that building was twenty metres away. Between lay an open court, to which access was had through doorways cut in the wall behind the Captive's Façade. The rear of this wall, toward the court, seems to have been decorated with a lower order of pilasters of slight projection and an upper order of half columns or of pilasters. Of all this we possess certainly identified only a few architrave blocks. From masons' numbers on these it appears that there were originally at least a dozen such blocks, or more probably twenty or more. They were thus, presumably, carried round at least three sides of the court.

Along the north side of the Agora, west of the Captive's Façade, was erected at some time in the first century A. D. a colonnade with a row of fifteen chambers behind, called by us the Northwest Shops. The central room of the fifteen, still covered by its original stone vault, is a conspicuous landmark in this part of the excavations. Of the order of this colonnade nothing is preserved except the stylobate, upon which weather lines and other traces show that the lowest member of the column-bases was a square plinth, and that the columns were so placed as to allow thirty-two in the whole length of the building. Though the bases indicated by the plinth should be Ionic, the order of the façade may in those times have been Corinthian or even Doric. The total length of the building was almost seventy-three metres. It presumably had a second story, for the walls of the shops are all of distinctly heavy construction. Only the central shop had a vaulted ceiling of stone, since only there is provision made for the thrust

Corinth: Northwestern part of Agora, from east; Greek Bases, Triglyphed Terrace wall and (C) entrance to Sacred Spring; Roman Northwest Shops (B); against sky, Mediaeval Church of St. John (left) and Greek Temple of Apollo (right).

of such a vault. In the others the ceiling was doubtless of wood. With the shops in two stories there may well have been a second row of columns in the façade, superposed upon the first. Concerning this, however, there is no certainty.

Immediately behind the Northwest Shops and masked by them is a long colonnade, the Northwest Stoa, built in Greek times, probably in the third century B. C., and restored when the city was refounded by the Romans. It was about one hundred metres long, with a depth of ten metres. Along the front were forty-seven Doric columns, widely spaced in the Hellenistic manner, with three metopes and triglyphs to each intercolumniation. Inside a row of twenty-two Ionic columns assisted in supporting the roof. The whole building was constructed of *poros* stone, the surface covered with a very thin stucco, which may be seen on many blocks underneath the heavier plaster applied by the Roman restorers.

The rear wall of the stoa was very heavy for much of its length, since it served as a terrace wall, supporting a filling of earth and stones by which the ground level behind was raised some five metres higher than that to the south. The construction of this wall is somewhat peculiar in that cement is used in the joints, though the blocks are fitted perfectly and bonded by the usual iron clamps and dowels. The joint is exact at the front and along the top, but the ends of the stones are slightly hollowed out, and the space thus left between blocks was filled with cement quite like that used in lining cisterns and water channels. The purpose of this arrangement was doubtless to prevent moisture from coming through the wall at the joints. Rather little is left of the walls of the

stoa, and of the interior columns in most cases no more than the sub-base remains; but the stylobate is preserved in nearly its whole length and many exterior columns are still *in situ*, some of them standing to a good height.

This long stoa formed the northern border of the Agora during the last century of the Greek city and the first century of the Roman. With the building of the Northwest Shops it fell into disuse as a colonnade and its front was closed by a wall built along the line of the stylobate, filling the spaces between the columns. The building continued, however, for a very long time still to be used, serving no doubt as a sort of warehouse. The east end was taken down and built over into two chambers or more. The walls of these latter fortunately preserve for us some of the original architectural members of the stoa with the stucco of both the Greek and Roman periods clearly distinguishable upon them.

Within the Agora in the space now open between the Captives Façade and the Northwest Shops (in Roman times deeply buried beneath these buildings) and to the south of this area is a low terrace wall which, running some distance from northeast to southwest, turns westward, making a curious, obtuse angle. This wall, owing to the fact that it is decorated with a triglyph frieze, forms a very conspicuous feature in this part of the excavations. It stands now in three sections, the middle one set out some distance eastward from the line of the other two; but originally it formed one straight line with two interruptions or openings for stairways. One of these latter, about five metres from the corner mentioned above, leads down to a trapezoidal underground chamber which, from the two lions'-head spouts of bronze still preserved in its rear wall, is seen to be a fountain.

Strange as it appears there is no doubt that these sections of triglyph frieze, though only one or two blocks are literally in the place for which they were first designed, were nevertheless made to serve their present purpose. It is the coping that betrays them; but for it one might perhaps believe, though with some difficulty, that they had been taken from their normal places in the entablature of a Doric building. The coping, however, can have had no such place. It consists of four members, cut on the same stone: a narrow plain fascia; a simplified Doric hawk's-beak moulding decorated with broad tongues painted alternately red and blue with yellow borders and centres of blue or red; a broad band bearing a Greek fret in yellow and red on a blue ground; and, as convincing evidence of the purpose for which these blocks were designed, a crowning member projecting fifteen centimetres from the face of the stone, clearly intended to protect the painted ornament and the triglyph frieze from the weather. In the frieze itself the triglyphs were painted blue, the metopes, under a blue band at the top, white. This white was renewed from time to time, and since some of it spread to the surface of the stones below, has thus left sure proof of the former existence of triglyph friezes, now entirely gone, on three other terrace walls in the neighborhood in addition to those here described.

On the top of the decorated terrace wall were tripods and statues, dedicated doubtless to the hero of the adjoining shrine discussed below. A bronze statue near the west end of the south wall was a work of the great sculptor Lysippus, as the existing inscribed pedestal of black Eleusinian stone testifies.

Corinth: Bronze spout in Sacred Spring. From a cast.

The fountain which has already been mentioned gives evidence of having been used for long periods. In very early times there was at this point a projecting ledge of conglomerate beneath which over a bed of clay trickled a small spring. Though obviously of scanty volume the water of this spring seems to have been considered of great value, and no doubt in time tradition grew up about it until it came to be regarded as holy.

The first construction of which we have definite remains dates from the beginning of the fifth century B. C. or perhaps considerably earlier. At this time a rectangular chamber was built eastward from the ledge, with a reservoir at its east end, while its west wall closed up the low cavern beneath the projecting conglomerate shelf. In this wall two bronze spouts in the shape of lions' heads were set and behind the wall in a carefully laid floor were shallow channels, carried back as far as human beings could penetrate into the diminishing cavern and designed to collect and convey the precious water to the two outlets. How precious the water was considered may be understood from the fact that the joints of the stones in these channels were meticulously covered over with thin bronze sheathing so that not a drop might escape.

Dripping from the bronze spouts into a well-made channel carved in *poros* the water was carried round the sides of the stone-paved chamber to the reservoir which occupied the full width of its eastern end. Access to the reservoir was provided from the east, where two deeply worn grooves close together in the stone side of the basin show that water was regularly drawn at only two points. This would be inexplicable were the fountain a public one; the public would surely have dipped in their jars everywhere along the front, and we should see a dozen wearings instead of merely a pair.

On the north side of the reservoir a stepped terrace-wall led up to a small triangular platform north of the fountain, from which in turn a flight of stone and rock steps ascended to the main terrace above to the northwest. The reason for carrying water up to this particular spot we shall discover later. In this early period the terrace wall decorated with the triglyph frieze, which has been described above, did not yet exist.

The building of this wall indeed marks a new period in the history of the fountain. For some reason which is not now clear it had become desirable to alter the ground level about the spring. When this rearrangement was completed the fountain had been transformed into a dark subterranean chamber entered by a narrow flight of steps leading down through the triglyphon as

Corinth: Area northwest of Propylaea, from southeast. In foreground, Greek Street, cut by two early Roman walls (A-A). Beyond these, foundations of Basilica. At left, at foot of the column of earth ("Martyra"), Boundary Stone of Sacred Precinct. At left edge of photograph, tunnel and water channel from small Greek Temple underneath Roman Northwest Shops (B).

we see it today. Coincident with this alteration seems to have been a diminution of the flow of water from the spring to the scantiest trickle. In the underground chamber no provision at all is made for carrying off waste. Jars presumably stood regularly beneath the lion's head spouts, receiving the precious drops and storing them against the time of need for sacrificial purposes. For perhaps one hundred years—throughout the fourth century B. C.—this arrangement of the spring endured. During this time the steps descending to the chamber were very little worn indeed—less than during the first five years of modern visits. Clearly the public was not admitted. Only the servants of the shrine on the terrace above to the northwest were permitted to go down to fetch the "holy water" when their sacrificial ceremonies required it. Coming up the flight of steps with their water jars they walked some metres along the triglyphon, then turned to the west, mounting by a second stairway to the terrace of the shrine.

In the course of this century some alterations were made. Thus the middle section of terrace wall between the two stairways was set forward about one metre from its original line in order to provide more space above for votive offerings.

Not much later the Old Spring seems finally to have run absolutely dry. That it was still regarded as sacred,

Corinth: Greek round-ended Temple; circular altar, from north. B-B, wall of Roman Northwest Shops; C, entrance to Sacred Spring.

however, is shown by the fact that, though now no longer of use, it was not dismantled, but was carefully closed with stone slabs and covered, together with the area to the east, with earth. For this very reason the fountain is still preserved in our own day with its bronze lion's head spouts intact, for the Romans never saw it or suspected its existence.

After the Old Spring had thus been buried, water still continued to be required in this spot. It was brought from a great distance in a well-constructed stone conduit, lined with cement and covered chiefly by stone slabs, and almost directly over the ancient reservoir, but more than two metres higher in level, a small square basin was built. From this basin jars could be filled and carried straight to the door of the shrine across the buried spring and triglyphon. This last period, in which other water was substituted for that of the Old Spring, beginning perhaps about the middle of the third century B. C., continued till the Roman conquest and the destruction of the city in 146 B. C. The illustration gives a general view of the ruins discovered to the northwest of this Propylaea (p.215).

A small temple or shrine on the terrace above the wall with the triglyph frieze has been mentioned more than once, and it has been shown that in all periods of the Old Spring direct communication was maintained with this sanctuary. Of this building only the foundations and two blocks of the first course of the wall are preserved. It is a shrine of no great size, rectangular at its east end, apsidal toward the west. Of extremely good construction, its blocks are perfectly matched and bonded together by dove-tail clamps, showing that the building must date from the fifth century B. C.

Exactly at its centre is a small round altar, which, to judge from its level and its orientation, seems of earlier date than the temple. A circular stone curb ran round it, concentric with the altar shaft and about twenty centimetres from it: how much it rose above the floor can only be conjectured, since its top has been broken away. The little round altar stood thus within a shallow circular well. Starting from close beside it to the east, a cement-lined channel, partly made of blocks of *poros*, partly cut in native rock, was constructed to carry water eastward down to the edge of the terrace. Alongside the channel is a tunnel large enough for a man crawling on hands and knees. Its walls and floor are cut in solid rock, its ceiling, which also served as pavement of the area east of the temple, was of well fitted blocks of *poros* of varying thickness, made even on top by a layer of cement where necessary. The roof of the tunnel covers also the water-channel, leaving sufficient space so that a man

from the tunnel could conveniently clean the channel. The tunnel ends beneath the temple just short of the altar. At their lower end the tunnel and the water-channel reach the face of the terrace at the level of the triglyph frieze, which here rests on a beautifully constructed three-course base. Upon a stone platform along the foot of this latter stands a stone bowl or basin to receive the water from the channel, which poured out through a spout in a metope. The next metope, swinging as a door, gave access to the tunnel.

In order that this metope might not stand out conspicuously as a door the other metopes of the frieze were made to look exactly like it. Ordinarily, as may be seen in numerous instances in this very region, when the frieze is of small scale, a triglyph and adjacent metope are cut from a single block of stone; or where the metope is of other material than the triglyph, the latter and the backer of the metope are cut from one block, while the metope itself, as a thin slab, is inserted from above. In the present instance, however, the triglyph, the backer of the metope, the narrow band at the top of the metope, and a second band above this (belonging usually to the cornice) are all cut from one block, while the metope itself is a separate inserted slab of the very same material. This unique, wasteful, and apparently futile method can hardly be explained otherwise than as due to a desire to have the metope appear separated (by a crack) from the bands above it. One of these metopes is then a genuine door, with the bands above it forming its lintel, and the others are deliberately made to match it in appearance. A passer-by might think the frieze a bit strange, but would certainly not imagine the metopes a row of doors, and would thus probably never suspect that one of them actually was a door. Close inspection of the place, even visiting, was by official edict strictly forbidden. For, a little to the east, where a main street leading up to the temple of Apollo gave access to the area below the terrace, there was set by the curb which separated this area from the street a stele bearing in large old-fashioned letters (of the kind used about 500 B. C.) a warning that the place was sacred and not to be entered on penalty of a specified fine. If one whose curiosity led him to disregard the fine entered the area and by chance happened to push open the metope-door (which naturally could not have been betrayed by a lock) he was still not free to go on up the tunnel. For just far enough inside to allow a man to crowd in and close the metope behind him, a real door, doubtless well locked, barred further progress except to one who had the key. This we know from the grooves cut in the rock walls of the tunnel.

This tunnel was without doubt, so far certainly as the masons who built it and the visitors who saw it being made had reason to know, provided to give access to the little water-channel that served the altar, for periodical cleaning. It was a very elaborate and costly arrangement, to be sure, but may well have seemed a luxury becoming the sanctuary, which may not have lacked funds. Ordinarily a water-channel, placed like this one close beneath the surface of the ground, was reached, if it ever became clogged, by lifting one or more of its cover slabs. Tunnels are usual only for aqueducts well under ground.

After the masons' work was finished, eight or ten generations of citizens and priests frequented the sanctuary. Shall we suppose that it never occurred to

the latter—whatever the original purpose of the tunnel—that here was apparatus that might be used to strengthen faith, to augment the fame and perhaps the income of their sanctuary? At the upper end of the tunnel, within the temple, there is a small hole opening out like a megaphone below the floor level. Under favorable circumstances a voice sounding here might impress a listener in the temple not a little. Or if men came to seek healing and slept a night in the temple, strange sounds from a mysterious source would be more likely to induce dreams that could be remembered and that could be interpreted by the priest to the advantage of all concerned. Or if one standing alone before the altar were to ask questions of a most private and secret sort, would not the answer given the next day be more apt if a priest with attentive ears had lain concealed in the tunnel when the question was propounded?

Who the god of this small temple was we do not know. Probably a "hero" rather than one of the Olympians. Some local demi-god, most likely, at whose simple altar there was from time to time a sacrifice involving use of water, along with, or after, wine or milk or honey or oil or blood. More specific evidence as to his identity we can hardly hope to find. The whole area has been excavated to hardpan without bringing to light a clue to his name.

With the destruction of the Greek city the temple ceased to exist. Not far to the south, however, there is a round foundation of early Roman times that may perhaps have borne a shrine or tiny temple dedicated to the same hero as the original temple and altar that had gone before. Some tradition of the sanctity of the place may have survived the century of desolation.

Some distance to the southwest of the temple, which apparently had no walled precinct about it, we find ourselves in an open part of the Agora, where a broken line of bases seems to mark the southern boundary of the sacred area. Following westward the line of these bases (and passing by a tunnel beneath a modern road) we come, ascending slightly, to the northwest corner of the Agora. To the west, forming the west side of the great open Agora, are the ruins of a colonnade, backed by a row of six vaulted chambers. The shallow portico was built in bluish marble in a modified form of the Corinthian order. On the faces of the capitals were carved curious animal-heads, winged lions, sheep, eagles, etc. Farther south is the concrete foundation of a broad monumental staircase which led up to a high Roman temple of which the massive concrete foundations still project above ground. This may be the building Pausanias calls the temple of Octavia.

From the northwest corner of the Agora in Greek times a street led out directly toward the Fountain of Glauce. In the Roman period the road first proceeded north through a simple gateway, probably an arch, and then, having passed a sacred precinct on either side, turned westward. Of these two precincts that on the west side contained a small temple set in an enclosure with colonnades on three sides and a wall decorated with half columns on the fourth. In this latter was the principal entrance, marked on the outside by a small portico with four unfluted columns. This sanctuary, dating probably from the first century A. D., is in a very ruinous state. No evidence has come to light to show to what god it was dedicated.

Corinth: Temple of Apollo, from southwest.

Corinth: Temple of Apollo, from east. A-A, foundations of Peristyle; bed cut in rock for foundation of cellar walls, B-B; for interior columns, C-C.

On the opposite side of the street was a much larger precinct, which we are now able from Pausanias' description to identify as that of Apollo. Until excavations gave the key to Pausanias' words the very ancient temple (p. 219), which here stands conspicuously on a hill as the characteristic landmark of Corinth, was claimed now for Poseidon, now for Athena. Seven only of the original thirty-eight columns of the peristyle remain in their places at the west end of the temple; the foundations of four others, that were removed by the Turkish owner some one hundred and thirty years ago, are still *in situ;* and yet another four lie as they fell and were buried before the first modern description of the temple was written. On their protected lower surface as they lie they preserve very well both the original thin Greek stucco, with which the surface of the soft limestone was coated, and the thicker plaster of the Roman restoration. The foundations of the temple were everywhere bedded in the living rock, and the lines of the cuttings show clearly (p. 220) the plan and dimensions of the structure. A row of columns ran round the building, six at the ends and fifteen on the sides, the latter being of slightly smaller diameter and less widely spaced than the former. The shafts of the columns are massive monoliths nearly twenty-four feet tall and somewhat less than six feet in diameter. With their curiously flat, archaic capitals they suggest the age of Periander as the approximate time when this venerable structure was built. Within the peristyle the temple had at each end a *prodomos*

Corinth: Fountain of Glauce, from north.

with two columns between *antae*, and seems itself to have been divided into two *cellae*. In the western of these are remains of foundations of a heavy basis in a position appropriate for a cult statue. If there really was such a statue here the temple must have been a double one, though we have no indication to what god other than Apollo it was dedicated. The innermost lines of longitudinal cuttings were for the foundations of interior columns. In the *pronaos* under the floor at the southwest corner was a rectangular strong box lined with waterproof cement. Two walls and the floor are preserved; for the other two walls the foundations of the temple were used. What treasure this box contained in the days of the glory of the temple; how it was opened and how often; by what means it was protected against plunderers—of these matters we know nothing.

From about the sixth to the third century B. C. one could approach the temple directly from the Agora by a flight of steps leading to the southeast corner of the precinct. These, which may be seen and used now, seem to have been buried at the time of the construction of the long Northwest Stoa. If, as is likely, better steps were then built to replace these, they have left no trace.

The hill on which the temple stands is shown by stone implements, potsherds, and obsidian blades found in the

By W. B. Dinsmoor

Corinth: Plans of the Fountain of Glauce.

accumulation directly above native rock, to have been occupied as a place of human habitation from time immemorial, at least two or three thousand years before the temple was built. Who can say what elements of a primitive cult established on this hill were handed down from generation to generation and finally united with the worship of Apollo in a splendid Greek temple?

About eighty metres west of the Temple of Apollo, immediately beyond the anonymous precinct mentioned above, is a conspicuous structure which by the testimony of Pausanias we may unhesitatingly identify as the Fountain of Glauce. The fountain was in plan not unlike Peirene, having four great reservoirs with three draw-basins at the front of them. These were approached through a portico with three square pillars between *antae* supporting a heavy stone ceiling in the form of an elliptical vault. The draw-basins fall also within the portico as defined by this ceiling. The heavy roof over the reservoirs is horizontal underneath. The whole structure was cut out of living rock, except for certain short partitions, a bit of flooring and the parapet. When the reservoirs were full the water was about ten feet deep and the storage capacity of the fountain was thus about 14,400 gallons. Water was brought by a small conduit from a source at the base of the Acrocorinthus, the inflow being not very great, certainly much less than in the Fountain of Peirene. The reservoirs and basins are lined throughout with very hard waterproof cement, brown in color and containing very small pebbles, these being slightly coarser in the floor than on the walls. The fountain seems to have remained intact during the life of the Greek city. With the Roman restoration the fountain was again brought into use, the only apparent change in its plan being a curtailment of the long western reservoir. Across this a wall was built, leaving it only a

Corinth: The Odeum. Staircase and part of Auditorium, from northeast.

little larger than the other reservoirs. The rock walls behind this wall were all quarried away at this time. Probably at this same time what remained of the ledge at the west side of the fountain was also removed, leaving the west wall very thin as we see it now. Ultimately the fountain fell into decay and its supply of water was cut off. Most of the roof of the western reservoir and of the portico, together with the columns and part of the west wall, collapsed. In time a house with two stories and a basement, the second story being on the roof, was established in the fountain. The house built in a fountain, however, had no water until a well was laboriously sunk through the floor to a depth of fifteen metres. At last the house, too, was abandoned and the Fountain of Glauce, now merely three low caves side by side, came to be used as a sheepfold. As such, and known to the inhabitants of the modern village by an unsavory name, *boudroumi*, "the dungeon," it became the object of the excavations which have now finally restored to it its ancient name.

How old that name is we do not know. The fountain most probably dates from the reign of Periander or his father Cypselus. Only Pausanias records the tradition that Glauce, vainly seeking relief from the flames of the poisonous robe which Medea had sent her as a wedding present, flung herself into this fountain. Strictly speaking, according to the legends, Medea and Jason and the hapless Glauce really lived centuries before the

fountain was built. But by Roman times the antiquity of the latter was nevertheless great enough to let the name seem reasonable, especially since not far away could be pointed out the tomb of Medea's children—stoned to death, according to the version of the story preserved by Pausanias, because they carried the baneful gifts to the king's daughter.

This tomb, Pausanias states, was to be seen beside the Odeum. The tomb is still unknown, but in 1907 the Odeum was rediscovered, lying less than forty metres west of the Fountain of Glauce. This has been excavated only enough to show its size (about seventy-five metres in outside diameter) and to disclose one of the entrances and stairways, and a small section of the stage. Where possible the seats were cut in native rock, elsewhere they rested on a bed of concrete above concrete vaults. The visible exterior walls were of coursed masonry. The earth removed in this exploratory digging was of necessity left beside the trenches and makes it impossible for a visitor to obtain a good view of the building. Should it ever be completely cleared, however, the Odeum will stand as an impressive Roman ruin.

Just north of the Odeum, at a much lower level, is the theatre. This, too, has been excavated only by trenches in which were found parts of the outside wall and of *diazomata* and foundations for aisles, stairways, and seats of the Roman theatre and of stairways and actual seats of the Greek theatre. This latter rose much less steeply from the orchestra than did the Roman. Covering a little more than a half circle, it was divided into fourteen sections or *kerkides*. The Roman theatre appears to have been an exact semicircle with fourteen sections below and twenty-eight above. The small part of the orchestra and stage that has been uncovered shows one Greek and two Roman periods, besides various Byzantine foundations. Numerous fragments of sculpture found here are among the best the Corinthian excavations have yielded. There were also some very interesting terracottas, including a mould for making small busts which were copies of the Athena Parthenos. This is doubtless from the

Corinth: Marble Head of a Girl. From a cast.

establishment of a coroplast who supplied offerings for dedication at the shrine of Athena the Bridler, whose sanctuary was near the theatre.

The excavations, then, have thus far uncovered many buildings, chiefly of Roman times, have determined the plan of the ancient temple and ascertained that it was sacred to Apollo, have brought to light the fountains of

Peirene and Glauce with their provisions for the supply and distribution of water, have made Pausanias' description of the city comprehensible, and have unearthed many works of sculpture, many inscriptions, and many minor objects of interest. A particularly attractive piece of sculpture is the marble head of a girl of a style which may be ascribed to the fourth century B. C., though the head itself, in spite of its excellent workmanship, is probably a Roman copy (p. 224). Other interesting works of sculpture are several portrait statues, among them one of Augustus Caesar. Among the inscriptions is one cut in a large block of stone which it identifies as the lintel of the Synagogue of the Hebrews—independent testimony to the existence at Corinth of a body of Hebrews from which could arise the Christian congregation addressed by St. Paul in his epistles. In connection with the excavations, the Acrocorinthus has been partially investigated, and explorations in the neighborhood have discovered numerous traces of pre-Hellenic inhabitants. Incidentally, through the excavations and with the help of the American Red Cross, which undertook to relieve the village of a source of malaria, the village of old Corinth has received an improved and purified water supply.

The excavations are by no means finished, but their results have been considerable. It may be that parts of the ancient city will remain, and ought to remain, undisturbed; but the School at Athens expects to take up the work again, to bring it to a satisfactory conclusion, and publish its results in proper form as soon as possible.

Corinth: Venetian Fortifications on the Acrocorinthus.

ART AND ARCHAEOLOGY

EXCAVATIONS OF PRE-HELLENIC SITES

When the American School at Athens was founded little was known of any inhabitants of Greece or the neighboring lands previous to the eighth century B. C. To be sure, Heinrich Schliemann had excavated at Hissarlik in 1871 and again in 1878, at Mycenae in 1874, and at Orchomenus in 1880, and the beehive tombs at Menidi and Spata, in Attica, had been discovered in 1877 and 1880; but the significance of these discoveries was as yet imperfectly understood; Mycenae was generally regarded as the greatest centre of the civilization disclosed by them, which was popularly associated with the Homeric poems; and, although Alexander Conze's study of Melian and other early vases had made the "Geometric Style" familiar to the limited number of real archaeologists then in existence, it is hardly too much to say that people in general—even those who had a genuine interest in antiquity—thought of Greek art as beginning certainly not before the eighth century B. C., with no earlier art existing in Greece upon which it could build, and reaching its height in the brief space of two or, at most, three centuries.

In the last forty years all this has been changed. It is now plain that the greatest and most widely influential centre of pre-Hellenic culture in the Aegean regions was in Crete, but that other places also were important; that there were invasions and wars at intervals during many centuries, and that the new population—the Hellenes—did not enter the land at one time as an overwhelming flood, but in many successive waves; that the earlier population influenced the invaders profoundly, though in varying degree; and that Greek art, though vastly different from that which had preceded it and immeasurably superior to anything that had been known in Greece or elsewhere, was, nevertheless, not a sudden and miraculous flowering from no visible stalk, but a growth from the art of the pre-Hellenic peoples upon which had been grafted the new spirit of the invaders from the North. It is now understood that the relation of Greek art to the pre-Hellenic art of the Aegean regions is somewhat like that of mediaeval art to the art of ancient Rome.

The study of pre-Hellenic art and civilization has, then, a real interest for the student of classical Greece. Moreover, the pre-Hellenic culture was not one and the same in different places throughout the long centuries before the coming of the Hellenes. The different phases of this culture—or rather, the different cultures of different times and places—are well worthy of investigation. Most of the work of this kind has been done since 1900, and in it the American School at Athens, though it cannot claim the most brilliant discoveries, has taken an honorable part.

In 1900 excavations were carried on for the School by Miss Harriet A. Boyd (now Mrs. Hawes), Agnes Hoppin Memorial Fellow of the School for that year, at Kavousi, in the eastern part of the island of Crete. Miss Boyd bore the entire expense of the undertaking, the success of which was remarkable. At six points in the neighborhood of Kavousi significant ancient remains were discovered, including cemeteries and the foundations of primitive habitations, one large and eight small beehive tombs, and a valuable series of objects illustrating the changing conditions of Cretan civilization from the very beginning of the Iron Age to the

The Island of Mochlos.

later part of the period of Geometric art. Among these objects are bronze arrowheads, rings, bracelets, fibulae (safety pins), pins, and nine pieces of thin plate with engraved designs; and iron swords, spear-heads, and axes. Of especial interest are the numerous vases found in the beehive tombs, which are built of small stones, not, like the great tombs at Mycenae, of large stones carefully cut and joined. The tombs at Kavousi are not those of great rulers over a mighty city, but of petty chieftains or dignitaries in a country district. The decoration of the vases shows a gradual evolution from the curvilinear style inherited from the preceding great Bronze Age of Crete (the "Minoan Age") to the purely rectilinear geometric style characteristic of the developed Iron Age. Here, at any rate, there was a gradual change, not a sudden and immediate break with the earlier culture.

The results of the excavations at Kavousi were such as to encourage further investigation of sites in eastern Crete, and Miss Boyd succeeded in arousing so much interest in Philadelphia that funds were subscribed and an expedition equipped in the name of the American Exploration Society to carry on the work. The excavations in 1901, 1903, and 1904 at Gournia, Vasiliki, and other prehistoric sites on the isthmus of Hieropetra, Crete, were carried on under the auspices and at the expense of the American Exploration Society, not of the School at Athens, but the head of the expedition, Miss Boyd, was a past member of the School, and she was assisted by Miss Blanche E. Williams (now Mrs. Wheeler), Miss Edith H. Hall (now Mrs. Dohan), and Richard B. Seager, two of whom were past or actual members of the School, while Mr. Seager was already tending to ally himself with it. Since, however, the School cannot claim direct credit for the work, it will suffice to say here that the remains of many ancient buildings were laid bare and a great number of minor objects found, among them many domestic utensils. The changing conditions of a small Cretan town which existed through many centuries before the end of the pre-Hellenic (Minoan)

Stone vases from Mochlos.

civilization were disclosed, and the life, not only of the rulers, but of the common folk as well, was made vividly real.

In 1906 Mr. Seager carried on at his own expense, but in the name of the School, excavations at Vasiliki, a site which had attracted his attention when he was attached to the expedition under Miss Boyd's direction. Here he found remains of houses of three periods, built of stone, with use of wood and plaster. The earliest pottery found here is subneolithic; the next is chiefly painted with dark paint on a light ground, and is contemporaneous with the earliest house walls; the third is a peculiar mottled ware, of red color shading to black and orange, often highly polished; the fourth class has geometrical designs in white on a black ground. The last period is that which immediately precedes that of the fine Kamares (Middle Minoan) ware at Cnossus. The site of Vasiliki may have been inhabited from about 2500 to 2100 B. C. The interest of these excavations lies in the addition of new material which can be clearly classified and more or less accurately dated.

At this point it may be worth while to say a few words about the classification and the dating of pre-Hellenic antiquities. In the first years of the twentieth century, Sir Arthur Evans had the good fortune, through his learning, ability, enthusiasm, and persistence, supported by sufficient resources, to uncover the ruins of a vast palace at Cnossus (Knossos), the home, according to ancient story, of King Minos, son of Zeus. Here the Minotaur, half man and half bull, was kept in the labyrinth from which Daedalus and his son Icarus escaped on wings of feathers fastened together with wax. The ruins uncovered by Sir Arthur belong obviously to several different periods, as do the objects found in them. Making use of the name of Minos, Sir Arthur called the civilization here represented "Minoan" and, using the different kinds of pottery as his chief criteria, he divided the long ages of its existence into three periods, Early Minoan, Middle Minoan, and Late Minoan. For further convenience, each of these is again divided (changes in pottery and its decoration being still the chief aids in the division) into three parts, Early Minoan I, Early Minoan II, Early Minoan III, etc. In this way a system of relative chronology has been created. To establish an absolute chronology

Jewelry from Mochlos.

(i. e., to give definite years or centuries B. C.) recourse is had to Egyptian objects found at Cnossus or elsewhere in Crete and to Minoan objects found in other regions, especially in Egypt, where the absolute dates are more or less accurately known. By such means it has been determined that the Early Minoan period extends from 2500 B. C., or earlier, to about 2100 B. C., the Middle Minoan from about 2100 B. C. to about 1600 B. C., and the Late Minoan from about 1600 B. C. to the destruction of the Minoan civilization, about 1100 or 1000 B. C. The Late Minoan is contemporaneous with

the time when Mycenae, in Argos, was powerful and rich.

In 1908 Mr. Seager conducted excavations in the small island of Mochlos, off the coast of Crete, the necessary funds being furnished by friends of the Museum of Fine Arts in Boston, by the School at Athens, and by himself. The objects which he was allowed to take out of Crete are in the Museum at Boston, and the final report of the work was published by the School. Mochlos was evidently a place of no little wealth and importance throughout the greater part of the Bronze Age, especially in the Early Minoan, the Middle Minoan I and III, and the Late Minoan I periods. Twelve houses or parts of houses belonging to this later stage were to a great extent uncovered and, though in almost every case sadly demolished by the buildings erected in Roman times, when the site was occupied by an unimportant settlement, nevertheless produced a good harvest of pottery and some interesting bronze vessels. Twenty-four tombs were opened. From the contents of these much information concerning burial customs was gained, and the objects found show the wealth and the technical skill of the people of the early times to which the tombs are to be ascribed. Perhaps the most striking objects are the vases of beautifully variegated stone and the personal ornaments (pp. 228, 229), chiefly of gold, great numbers of which came to light, among them an interesting signet ring. Weapons also were found, and much pottery which is interesting and often beautiful, quite apart from its usefulness in fixing the dates of the tombs and their contents by comparison with the pottery found at Cnossus and elsewhere. The discoveries at Mochlos are of special importance because they are, for the most part, of very early date and show how far the inhabitants of the eastern part of Crete had advanced in the Early Minoan period; but they have been fully published and must therefore be passed over here without more detailed description.

On the mainland of Greece the excavations of the Argive Heraeum first led the School into the prehistoric field. The remains found at this important place showed clearly that the site had been occupied by man from very early in the Bronze Age, and gave ground for maintaining with no small degree of probability that the famous cult of Hera possessed roots going far back beyond the dawn of history. No satisfactory stratification, however, was revealed, since the subsequent Greek buildings had for the most part destroyed the sequence. Under the direction (and at the expense) of Professor J. C. Hoppin, who took part in the original excavations, it is planned to conduct a new campaign at the Argive Heraeum to test, in the light of the greatly increased comparative material now available from the whole Aegean basin, and especially from Crete, the prehistoric layers in and about the ancient shrine of Hera.

That the site of Corinth and its neighborhood can hardly have been without inhabitants in very early times is a natural assumption, but before the excavations were undertaken there by the School, no proof of this had been gathered. From almost the beginning of the excavations, however, sporadic finds of prehistoric objects began to be made. These included stone implements, blades of obsidian, numerous potsherds of an unusual type, and two remarkable graves cut in rock at the bottom of a vertical shaft. The presence here of these remains was explained through an important dis-

covery made by Dr. Alice L. Walker, who observed that the hill on which stand the ruins of the temple of Apollo was also the site of a large prehistoric settlement going back to very early times. Miss Walker has conducted excavations on the hill and round about it, bringing to light undisturbed deposits of this remote age. The numerous finds form a very impressive collection and are of extreme importance for an understanding of the prehistory of Southern Greece.

Systematic exploration of the Corinthia has led to the discovery of a large number of other prehistoric sites. No fewer than ten such settlements have been recognized, lying close together in this small area forming the northeastern corner of the Peloponnesus. At one of these, called Korakou, excavations were conducted in 1915 and 1916 by Dr. Carl W. Blegen, at present Assistant Director of the School. Here numerous foundation walls of stone laid in clay, several layers of decomposed crude brick, and eleven successive levels of habitation appeared. Three main strata are readily distinguishable. In addition to the houses, several tombs were discovered. A considerable number of miscellaneous objects—utensils and the like—came to light, but most important are the fragments of pottery; for it is chiefly by means of pottery that the changes in pre-Hellenic civilization and the relations between different places are to be determined. After the discovery of the brilliant Minoan civilization in Crete, there was a natural tendency to assume that this culture, as long as it existed, was completely dominant throughout the Aegean regions—that any civilization anywhere in those regions had its origin in Crete. Investigations at various places in the Cyclades and on the Greek mainland have proved that this was not the case, and the discoveries at Korakou help to make clear the conditions and the progress of mainland civilization, which, though doubtless having more or less continuous trade relations with Crete, was independent of Minoan culture. The mainland civilization is called by Dr. Blegen "Helladic," and it falls into three periods, Early Helladic, Middle Helladic, and Late Helladic. The Early Helladic period is divided into three lesser periods, Early Helladic I, II, and III, the Middle Helladic into two (I and II), the Late Helladic into three (I, II, and III). The Early Helladic extends from about 2500 B. C. to 2000 B. C., the Middle Helladic from 2000 B. C. to 1600 B. C., the Late Helladic from 1600 B. C. to 1100 B. C. Thus the three main periods correspond in date to the Early, Middle, and Late Minoan, except that the Early Helladic period lasts about a century longer than the Early Minoan. The Early Helladic culture, as seen at Korakou, developed through some four or five centuries, when it was destroyed by invaders from the north. The newcomers were progressive and readily assimilated ideas from abroad. The potter's wheel was in regular use, and imported types of pottery were imitated. The Late Helladic period is

Korakou: Walls of Prehistoric House.

Korakou: Fragments of Middle Helladic Pottery.

that represented by the splendid remains of Tiryns and Mycenae. Although the objects found at Korakou are of little or no intrinsic value, and seem at first sight to be of no importance, they have, nevertheless, made it possible to draw—in somewhat broad and vague outlines, to be sure—a preliminary sketch of the history of the Corinthian region for some 1500 years before the "Dorian Invasion."

In the spring of 1921 a fund contributed by friends of the School made possible the partial clearing of a prehistoric settlement at Zygouries,[1] about half way between Corinth and Mycenae. Remains of all the Helladic periods were brought to light. Especially interesting are numerous foundation walls of houses of the Early Helladic age. Among the small objects from this level are a little terracotta figurine representing a woman, a button-seal of terracotta, and a fine bronze dagger, which are the first objects of their kind to be found on the mainland. From the Late Helladic period the most noteworthy discovery was a potter's workshop filled with vases numbering nearly 500. All are of Late Helladic style and quite unused. The discoveries at Zygouries, which were fully reported by Dr. Blegen in the May number of this journal, strengthen the conclusions drawn from those at Korakou and add new lines to the sketch of the history of Greece in the times before written history was known. Complete reports of further excavations at this site will undoubtedly be of considerable importance.

The work of the School in the field of pre-Hellenic archaeology has been fruitful of results and encourages us to hope for success in future undertakings.

[1] See Excavations in Greece in 1921, by C. W. Blegen, ART AND ARCHAEOLOGY, xiii, No. 5 (May, 1922).

The Acropolis at Athens, from the west.

RESEARCHES ON THE ATHENIAN ACROPOLIS

Within full view of the American School on Mt. Lycabettus, and only 1⅛ miles distant as the crow flies, rises the shrine of every student of classical civilization, the Acropolis of Athens. Here is no site for the spade of the foreign excavator; generous as is Greece in granting concessions elsewhere to the foreign schools, she has with propriety reserved the shrine of Hellenic civilization for herself. The era of the spade, furthermore, was practically closed with the end of the last great excavations thirty years ago. But excavation is only a preliminary stage; the analysis and interpretation of the finds may go on forever, and in these studies the Greeks have always welcomed foreign cooperation. A natural result of propinquity and of Greek hospitality is the great share of our attention which the Acropolis has claimed.

As long ago as 1820 Colonel Leake wrote, "we are at length arrived, after a gradual approximation to the truth from the middle of the seventeenth century, at a correct knowledge of those magnificent buildings which adorned the citadel of Athens; not that many curious discoveries upon the monuments of the Acropolis may not still be made, when its platform shall have been cleared of the wretched dwellings which now cover its soil, and disfigure its appearance, but that in regard to the three great buildings, the Propylaea, Erechtheum and Parthenon, *it is probable that very little remains to be done.*" The very next year saw the beginning of the Greek War of Independence; and on the establishment of the Greek Kingdom there followed a period of feverish activities on the Acropolis, the excavations by Ross and Pittakis revealing masses of sculpture and inscriptions, and even buildings hitherto unknown, such as the temple of Athena Nike and the Old Propylon. In the field of architecture perhaps the most striking results were the investigations by Penrose, and the restorations (unfortunately mediocre), not only of the temple of Nike but also in the Parthenon, Erechtheum, and Propylaea. And so, after fifty years, Adolf Michaelis was

able to say, "At the present day, the entire mass of débris on the Acropolis may be regarded as so thoroughly examined, that *we can no longer reckon on further discoveries*." But then came the great excavation of the entire site by the Greek Archaeological Society, under the superintendence of Kavvadias, 1885–1891, with results of vast importance for the study of early Greek art. The history of the Acropolis during the archaic period, hitherto practically unknown, was now an open book for those who could interpret the new finds of sculptured and architectural fragments. In the field of architectural investigation we meet another dominating figure, that of Dörpfeld, whose studies and methods have characterized the last forty years; and in the field of architectural restoration must be noted the masterly reconstructions of the buildings on the Acropolis, carried out by the Greek Archaeological Society, and afterwards by the Greek Government, under the superintendence of Balanos. And now that another half century has passed since Michaelis wrote, who would be so rash as to assert that the work is done, that little more remains to be discovered?

What has the American School accomplished toward the solution of these problems? What are the possibilities for its future members? These questions may best be answered by a general survey of its work in the past.

In 1882 seven young men, the first members of the American School, appreciating the magnitude of the field before them, decided that the only method of securing results was to subdivide and specialize. In this specialization the Acropolis naturally shared; one, H. N. Fowler, chose the most puzzling building on the Acropolis, the Erechtheum; another, J. R. Wheeler, the theatre of Dionysus on its southern slope. Professor Fowler's essay on the Erechtheum is of special interest because it marks the beginning of American studies of that structure which are now culminating, after forty years, in a definitive publication, to which Professor Fowler contributes the chapter on sculpture.

While specialization has continued to be the guiding principle at the School, work of a more general nature has not been neglected. General discussions of the history and topography of the Acropolis as a whole are numerous in many languages, but none was more useful in its time than a dissertation written by a student of the School, Professor Walter Miller. This has now been superseded by the monumental handbook, *The Acropolis of Athens*, by a former Director of the School, Professor D'Ooge.

Returning now to detailed investigations of the Acropolis, we may refer first to architecture. Here it would seem that the field was very limited; among those who had sifted the material we recall such notable figures as Penrose and Dörpfeld; in our libraries stand the great folios of Stuart and Revett, Inwood, Ross, Penrose, Michaelis, Bohn, and Collignon, and the series of beautiful drawings by the pensionnaires of the French Academy at Rome, as well as a host of special articles. Yet a survey of all these works reveals innumerable gaps and inaccuracies; some, like Penrose, were interested primarily in a single phase; and there are many questions on which the publications are absolutely silent, and one must still resort to the buildings themselves. An opportunity without parallel, furthermore, arrived when the systematic restoration of the buildings was begun in 1897; not only did

German Institute Photograph.

The Erechtheum, from the southwest.

scaffolding for the first time bring every part within reach; but the work of reconstruction sometimes momentarily revealed surfaces which had not been exposed since the days of Pericles, while other surfaces, long exposed and containing valuable evidence, were now concealed forever. It remained for Dr. Heermance, who became Director in 1903, to seize the opportunity,—and now the scaffolding had been moved to the Erechtheum, the temple which had first engaged the School's attention twenty years earlier. With the consent of the Greek authorities, an architect was attached to the School largely for the purpose of recording the evidence while it was still accessible; and this position has been filled successively by G. P. Stevens, Gordon Allen, H. D. Wood, W. B. Dinsmoor, and L. B. Holland. The buildings studied in greatest detail, therefore, have been those in course of reconstruction since 1903; but it will be seen that the others have not been wholly neglected. And of the results of these American investigations no better appreciation could be desired than the words of the master of architectural ratiocination, Dörpfeld, in a short article published in 1911, "Zu den Bauten Athens."

The Parthenon has been subjected to such detailed studies by Penrose, Magne, and others, as to give the erroneous impression that it has been thoroughly published. As a matter of fact, few temples have been less satisfactorily published; yet it is doubtless because of the apparent exhaustion of the subject that the School has not been concerned with its architectural

features. The plan alone was surveyed by Dinsmoor in 1910, in connection with Hill's study of the earlier temple. Greater interest attaches to the investigations of such accessories as the sculpture and inscriptions. Sir Charles Walston, while Director, published articles on the Panathenaic frieze, and particularly on a new fragment showing the head of Iris; W. S. Ebersole took advantage of the scaffolding to study the metopes of the west façade; Alfred Emerson and Miss Perry (Mrs. Durand) investigated the pedestal of the cult statue, and D. M. Robinson contributed a valuable study of the reproductions of the Athena Parthenos. The epigraphical studies of E. P. Andrews, on the great Neronian inscription, and of Dinsmoor on the building accounts, will be mentioned later.

If little has been done with the Parthenon as an architectural monument, the contrary is the case with its predecessor, the Older Parthenon. In 1909 a chance observation, that some marble step blocks scattered on the surface of the Acropolis had been incorrectly employed in Dörpfeld's study of the Older Parthenon, led the present Director of the School, Dr. Hill, to make a new investigation of these steps and of everything connected with them. Most unexpected were the results: a block of pink Kara limestone imbedded under the present Parthenon, hitherto regarded as a piece of a top step reemployed merely as filling, was proved to be in its original position, the corner block of the lowest step of the Older Parthenon; and diligent probing with an umbrella rib through the cracks in the present structure revealed a continuous line of similar blocks under the entire south flank of the temple. The excavation of a hitherto unopened grave of mediaeval church dignitaries under the northeast corner of the Parthenon revealed the north edge of the earlier and narrower platform cut in solid rock. And when the plan of the Older Parthenon was restored according to these and other indications, it was found that the upper steps were not, as previously supposed, of limestone, but of marble, and that the width was too narrow for Dörpfeld's restoration of an eight columned façade, but was exactly right for six columns. All the unpaved areas inside the Parthenon were excavated anew;[1] and in one of them was found, though not in its original place, a moulded base, a corner block of the inner building of the Older Parthenon; it had been seen by Lord Elgin's workmen in 1802 but was never understood. Blocks of the same moulded base could be felt, though not seen, in the thick wall pierced by the doorway to the Turkish minaret, where they had been employed as filling by the Periclean builders. Dörpfeld himself was the first to retract his theories in favor of the new restoration; and Collignon took due cognizance of the new facts in his great book on the Parthenon. This was not merely a question of the recovery of a new temple plan. The Older Parthenon was the first Athenian temple to be constructed of marble, and as such it was the starting point of the Periclean theories of design; even its columns were incorporated bodily in the present Parthenon, and so determined the latter's scale and dimensions. On history, too, the new discovery sheds considerable light, and incidentally discloses some of the dangers of ratiocination: Dörpfeld had assumed that there were three successive Parthenons—two, the *poros* and the Older Marble Parthenon, never

[1] All these areas except the northeast grave had been uncovered during the Greek excavations in 1889.

completed, and the third the present structure. But now the *poros* Parthenon disappears as a myth, its sole basis, an assumed incongruity between a limestone stylobate and marble columns, and an assumed coeval terrace wall, eliminated because there never was a limestone stylobate, and because the terrace wall contains fragments of marble columns of the very temple which Dörpfeld thought it was intended to support. And the Older Marble Parthenon emerges as the only predecessor of the present temple, the creation of Themistocles and Aristides after the battle of Marathon, a memorial of victory over the Persians which the Persians themselves demolished upon their return.

The second of the great temples, the Erechtheum, had, as we observed, been studied by Professor Fowler in the first year of the School's existence. No complete publication of it has appeared, however, since the days of Revett and Inwood; and these antiquated drawings of 1754 and 1818 are still serving the needs of our modern architects who reproduce *ad infinitum* the details of the temple. But in 1903 the School took advantage of the scaffolding which had been placed round the Erechtheum, and secured the services of a trained architect, Gorham Phillips Stevens, now Director of the American Academy in Rome. The drawings which he produced during the next two years were a revelation in the art of archaeological presentation of an ancient building, in respect not only to beauty, but also to thoroughness and accuracy. One set of these drawings aims to present the actual appearance of the building today; a plan, and elevations of all the walls, both inner and outer faces, give a complete view of its present state, with all important dimensions; new marble inserted during the modern reconstruction is carefully distinguished from old; original blocks erroneously placed upside down by Pittakis are so indicated, as well as modern ironwork; and all ancient constructive details, such as clamps and dowels, are brought out as clearly in the drawing as on the actual temple. A second group of drawings gives, at a smaller scale, a complete set of restorations, plan, elevations from the four cardinal directions, and sections. Most useful to the present-day architect is a third group, consisting of eleven plates of details at a large scale, besides two plates of full size profiles, many here identified and drawn for the first time. Plates of special assemblages of stones, and numerous text illustrations, complete the series.

It had been the original intention to accompany the drawings with a complete history and description of the temple, and this work was divided among Messrs. Heermance, Fowler, and Caskey. The death of Dr. Heermance caused a long delay in the completion of the text, which, however, permitted Stevens to bring his drawings up to date in accordance with the final restorations on the temple, terminated in 1909. And now, under the able editorship of Dr. J. M. Paton, it seems that the date of publication is close at hand. Meanwhile some minor studies have already appeared: Stevens himself published one of his most illuminating discoveries, that of the windows in the east wall; G. W. Elderkin and C. H. Weller have published suggestions as to the hypothetical original plan, or lack of it; Hill and Caskey have contributed several articles on the architecture as solved by the building inscriptions, while O. M. Washburn and Dinsmoor have written concerning the inscriptions themselves; on the ancient history of

the temple and its predecessor, the Old Temple of Athena, may be cited the articles of W. N. Bates, A. S. Cooley, Fowler and J. W. White, and on the mediaeval and modern history, the notes of Dr. Paton.

Among the most striking discoveries represented in the new drawings, a few must be noted even in this brief review. In the plan, the most notable feature is the longitudinal partition which divides the west cella into two parts, as in the Old Temple of Athena, a discovery due to Hill; this has an important bearing not only on the arrangement of the offerings within, but also on the derivation of the plan. The reconstruction of the hitherto unknown east windows, by Stevens, was based upon the identification of a wall block notched to receive the end of a window sill, and of another with dowels for the end of a window lintel; fortunately these could be accurately located, and thence he proceeded to the insertion of elaborately carved lintels and jambs, of which one fragment was in the British Museum. On account of the absence of supporting stones, the reconstruction of the actual windows was impracticable; but the presentation of the evidence forms a model of architectural ratiocination, and the proof of the existence of windows indicates that the east cella was from the beginning intended to receive the mural decoration described by Pausanias. Somewhat different in character was the restoration by Hill and Caskey of the *metopon* and niche at the southwest corner, for their work was based largely upon non-existent stones described in the building inscriptions; yet it is a convincing account of the irregular device which simultaneously housed one of the minor cults in the Erechtheum and eliminated a burden of six tons of marble from the great lintel spanning the grave of Cecrops and supporting the Porch of the Maidens. The opening and shaft in the ceiling and roof of the North Porch, by means of which the lightning-scars on the rock below the floor always remained exposed to the sky, was not, to be sure, an American discovery; Balanos and his Greek associates obtained the clue from a coffer slab in the British Museum, and from two slabs of the lining of the shaft itself, which they were able to replace on the building; but the new drawings are the first to present the evidence in full. Other new facts about the temple will be discussed in connection with the epigraphical material.

The third great building on the Acropolis, the Propylaea or monumental gateway, had been published by Richard Bohn in detailed form in the very year of the foundation of the School, 1882; but immediately after the appearance of this work it was in large part superseded by Dörpfeld's two masterly articles on the form of the two projected east halls and on the projected and actual form of the southwest wing. And there the matter rested, until in 1909 the Greek Government undertook the reconstruction. But meanwhile the Americans had begun their studies; in 1903 Dr. Hill ascertained certain facts with regard to the spacing of the projected beams and triglyphs in the northeast hall, facts which necessitated a considerable revision of Dörpfeld's plan. Then the third architect in the School, H. D. Wood, devoted himself chiefly to the study of the west wings, which he reconstructed on paper, stone by stone, until the puzzling details of the roofs, hitherto uncertain, were conclusively settled. Most interesting, perhaps, was the discovery of the suspended

The Propylaea, from the east.

frieze and the special hipped roof which covered the key-like projection forming the false northwest corner of the southwest wing, which Dörpfeld had left flat; but of equal importance was the piecing together of the colossal tiles, projecting twelve feet from the walls, roofing the open niches between the west wings and the central building. This work was continued by the fourth architect, Dinsmoor, until, with one or two exceptions, all the stones removed to make way for the Florentine tower (demolished at Schliemann's cost in 1875) were recovered; the last step was the identification of the gutter-moulding of the southwest wing, an unusual combination of the "Ionic" *cyma recta* with the Doric cornice, wherein Mnesicles imitated the temple at Bassae. Finally, taking advantage of the scaffolding which the Greek authorities had erected in 1908, Dinsmoor began the study of the central building, and such was the accumulation of new material that the desirability of a special volume, like that projected for the Erechtheum, soon became evident. As yet nothing had been published by the School on the subject of the Propylaea, with the exception of an article on special details by Dinsmoor. He now undertook the composition of the proposed work, with the aid of the manuscript notes by Hill and Wood, and devoted parts of ten years to the task, which is at present on the eve of completion. Following the example set by Stevens, the drawings are arranged in sets presenting successively the actual state, the restorations, the details, and the profiles. In presenting the actual state Dinsmoor adopted a slightly different point of view. Since the modern reconstruction necessarily employed some of the stones where they could be properly supported, and omitted others, he preferred a paper reconstruction in which

all stones without exception could be placed in their original positions; the present state of the reconstructed portions is then represented for comparison on special sheets. Again, in connection with the restorations the point of view is slightly different: for we are here concerned not only with the mutilated design as actually erected, but also with the original scheme. Thus it has been necessary to show the building under four aspects: as Mnesicles originally conceived it, as it

The Propylaea: Interior, showing northeast corner.

was actually built, as it has now been reconstructed, and as it might have been reconstructed if the law of gravity could have been disregarded.

The drawings are to be accompanied by a complete history and description of the building, including the inscriptions; a preliminary edition of the building accounts has already appeared. All portions of the building are discussed from three points of view: the identification and restoration of the actual stones, the principles of design, and the significant details of construction. Among the results which differ from those obtained in previous investigations, a few may be picked out for special mention. The important modifications of the roofs of the west wings have been noted above. With regard to the original plan of the southwest wing, it can now be shown that Dörpfeld's west colonnade was never projected. The pedestals projecting westward from the west wings, subsequently used for bronze equestrian statues, have for the first time been completely restored. As a result of Hill's determination of the triglyph spacing, the exact length of the projected east halls is now known; and it is also apparent that they were intended to have hipped roofs, and that they were not to have been open colonnades as Dörpfeld supposed. A special phase of the history of the building, a period when Mnesicles temporarily overcame the objections of the Brauronian priesthood and commenced a revised design of the southeast hall, has been made evident by significant though hitherto unnoted details. The form of the central building is so obvious as to yield little opportunity for fresh discoveries. Yet even here the arrangement of the beams of the ceiling of the east portico had never been correctly solved. And the curious makeshifts of the gable separating the higher and lower roofs of the east and west porticoes, evident as they are only in scattered stones, had not been brought out in earlier studies. Smaller details, particularly constructive details, hitherto largely neglected, play important parts in the story. Here need

West end of Acropolis: Beulé Gate in centre; Temple of Athena Nike above at the right.

be cited only the systems of balancing cantilevers over the wide spans (as in the friezes and pediments of the central building, the architrave over the main doorway, and the frieze of the southwest wing), the reinforcement of marble architraves and beams by increasing width or height, and even a system of reinforcement by means of concealed iron beams (as in the Ionic architraves), this last not an American discovery, but due to the acumen of Balanos.

The Old Propylon underlying the present structure had meanwhile been the object of a lengthy study by Professor C. H. Weller. He, like Dörpfeld, found evidence which forced him to reject the current theory that it was of Cimonian date; it was obviously pre-Persian, and now the evidence points to its being the work of Themistocles and Aristides, like the Older Parthenon. Weller's modest but effective excavation cleared several doubtful points concerning the internal and external arrangements, particularly in connection with the steps and forecourt. Additional small excavations by Dinsmoor have permitted some revisions; more rock-cut steps have appeared at the entrance, and the total width of the building as restored by Weller must be greatly increased; so that the whole will be republished in the monograph on the Propylaea. All search for the superstructure has been fruitless; we are forced to the conclusion that, as in the case of the Older Parthenon, the superstructure had not been erected when the Persians stormed the citadel in 480 B. C., and that the temporary restoration by Themistocles was of makeshift materials which have quite disappeared.

Another early monument underlying the Propylaea is the prehistoric

Mycenaean wall, discussed in Professor J. W. White's article (in Greek) on the Pelargikon. Its facing of marble metope slabs, added by the sons of Pisistratus, has been studied in connection with the Old Propylon. And it is possible that two similar second-hand metopes, containing regulations for conduct within the Acropolis and studied at length by Dr. Hill, were set up in the immediate vicinity in 485 B. C.

The temple of Athena Nike, the first of the Athenian monuments to be reconstructed in modern times, has been frequently published, but never correctly. Its history, furthermore, is so intimately bound up with that of the Propylaea that a republication by the School seemed a fitting undertaking. An additional incentive was the identification of the original cornice by Stevens. The cornice assigned to the temple in all the published restorations is much too large in scale, and really belongs to the North Porch of the Erechtheum, while the new cornice is, as it should be, an exact replica of that of the vanished temple on the Ilissus. On the top of this cornice, moreover, are clear traces of pedimental statuettes, such as the handbooks declare to have been omitted in this temple. For these reasons, Dinsmoor made a thorough study of every stone in the temple; it was possible to ascertain the proper positions of many which had been wrongly replaced in 1835–1844, and to identify several others which had been omitted during that reconstruction. The date of the structure, long a subject of dispute, can now be definitely stated as about 435 B. C., contemporary with the last work on the Propylaea and with the beginning of the Erechtheum. The new drawings and discussion will be included in the monograph dealing with the Propylaea and the West Slope in general.

A pendant to the temple of Nike is the pedestal of Agrippa on the north side of the approach to the Propylaea, the colossal rectangular shaft formerly surmounted by a four-horse chariot, always hitherto regarded as an example of Roman bad taste and a disgrace to the Acropolis. Beulé in 1852 found it tottering on its foundations and was tempted to let nature take its course; but conscience prompted him to make needful repairs. Now, however, the pedestal has acquired new interest: it is not Roman, in spite of the inscription of the son-in-law of Augustus. For Fauvel, Napoleon's consul at Athens, had left in his manuscript notes an observation that the inscription was placed on a rough rehewn surface, and Dinsmoor, finding this note, was thereby prompted to make detailed investigations, which fully vindicated the Greek character of the pedestal. Traces of two superposed inscriptions, and thirty-two hoof-cuttings, bore witness to its double employment; and the Pergamene character of the workmanship connected it with certain literary notices which indicate that the vicissitudes of the monument were as follows: It was erected by the Attalids of Pergamum at about 175 B. C., after a Panathenaic victory in the chariot race; the colossi of Eumenes and Attalus were subsequently replaced by statues of Mark Antony as the New Dionysus and of Cleopatra as Isis, statues which were appropriately overthrown by a hurricane on the eve of the battle of Actium; then the victorious general Agrippa usurped the pedestal.

At the foot of the slope lies the Beulé Gate, a late Roman monument of little interest apart from the second-hand materials of which it is composed. Of

these older blocks, however, only those in the upper part of the marble screen had been identified by Dörpfeld in 1885 as coming from the choragic monument of Nicias. But a new survey of the gate by Dinsmoor, in connection with his study of the west slope, indicated that the *poros* limestone towers were likewise composed of portions of the same monument. And his discovery of the actual foundations of the monument of Nicias, showing that it was not demolished when the Odeum was built in 161 A. D., made possible a much later date for the gateway, as indeed its workmanship would indicate.

The monument of Nicias must likewise be included among the monuments of the Acropolis, for most of its remains are now in the Beulé Gate, and the foundations themselves were found by Dinsmoor in 1910 on the south slope near the theatre. Even before the discovery of the foundations, however, the identification of numerous scattered fragments of the superstructure had made it apparent that the monument was not a mere façade against the rock, as Dörpfeld had supposed, but a free-standing building, of temple shape, with a portico six columns in width and two in depth. The foundations, of which only two diagonally opposite corners were visible above ground, were identified by means of the size, shape, date (as evidenced by the materials), and location (for in the immediate vicinity are some fragments of the superstructure which the Romans discarded); and on the foundations, when they were afterwards excavated, lay splinters of the mouldings of the superstructure, broken off during its demolition. The architectural interest of this monument had been indicated by Dörpfeld; but the new location gives it an historical interest also, for here it was seen by Plutarch and mistaken for the dedication of the more famous Nicias, the general.

Likewise on the south slope is the sanctuary of Asclepius, studied by members of the School in 1905. Some of the dedicatory inscriptions were published by Professor W. N. Bates. And the east stoa, a two-storied colonnade

The Monument of Agrippa.

with a mezzanine floor, a mysterious pit, and a sacred well, was measured and restored by Gordon Allen and L. D. Caskey.

In the field of architecture, therefore, the School has made definitive studies of two of the four buildings now existing on the Acropolis, the Erechtheum and the Propylaea. We may term them definitive studies, because in both cases all previous studies of the last five centuries, including even unpublished manuscripts in European museums,

have been sifted and summarized; and in both cases the architects have examined every stone, and have had access to parts of the buildings that will never again be revealed. Of a third building, the temple of Athena Nike, our studies again have been more thoroughgoing than any hitherto undertaken; but here the same finality cannot be claimed, because it will only be when the temple is eventually taken down and rebuilt that some of the minor problems can be solved. With regard to the fourth building, the Parthenon, only special features have been investigated. But five of the lesser monuments, the Old Propylon, the pedestal of Agrippa, the Beulé Gate, the monument of Nicias, and the east stoa of the Asclepieum, have been studied to the last detail. And as for publication, two monographs are already on the eve of appearance: one, that on the Erechtheum, will present the masterpiece of Ionic architecture for the first time in worthy form; the other, that on the Entrance to the Acropolis, will give us the typical Doric orders of the Propylaea, and also its internal Ionic order, the Ionic temple of Nike, and certain neighboring monuments such as the Old Propylon, the pedestal of Agrippa, the Beulé Gate, and the monument of Nicias, as well as certain related structures such as the monument of Thrasyllus, the temple on the Ilissus, and the greater propylaea at Eleusis. Other architectural studies have been presented from time to time in the form of articles. It would be a lasting service if future investigators would complete the series dealing with the Acropolis by adding a third publication on the Parthenon, and a fourth on the lesser buildings, both pre-Periclean and post-Periclean.

In the field of sculpture less has been done. Special studies of the sculpture of the Parthenon have been noted above. Full descriptions of the sculpture of the Erechtheum and of the temple of Nike will be included in the monographs dealing with those structures. Among studies of isolated pieces, we should mention that of the so-called Mourning Athena by Miss Bennett (Mrs. Anderson), that on the Artemis Brauronia by John Pickard, and a few notes on the Athena Promachos by Dinsmoor.

There is, however, another field in which the School has been particularly active, that of epigraphy. Beginning with Professor C. D. Buck's publication of some of the inscriptions found during the great excavations, epigraphical studies have nearly kept pace with those of the architectural monuments. Though the field may outwardly appear to have been thoroughly exploited, yet fresh possibilities await one at every turn. Sometimes results have been attained only after gymnastic feats involving great personal risk. Such was the case when E. P. Andrews in 1896 lowered himself day after day from the cornice of the Parthenon, and, seated in a rope swing, secured squeezes (paper casts) of the nail holes on the architrave of the east façade. Frequently the squeeze would be torn away by the high wind before it was dry; even the ropes by which he was suspended were frayed by the jagged cornice; yet in the face of these obstacles he finally secured a complete record. And of what did it consist? It was merely a confused series of nail holes arranged in groups of varying formation. The next step was to determine an alphabet, a form of bronze letter for which each group of holes would form the logical attachment; and this alphabet once fixed, the decipherment progressed, until the in-

scription was revealed as of the epoch of Nero, 61 A. D. Similar in daring were the sudden appearances of C. N. Brown at unexpected points on the Acropolis walls, as he scaled them in search of inscriptions immured in the Turkish patchwork repairs. His zeal was rewarded by the discovery of twenty unknown or erroneously read examples, the most important being a portion of a treasure-list of the Parthenon.

Though the excavation of the Acropolis was long since closed, yet new inscriptions may still be unearthed, or extracted from walls. Take for example A. C. Johnson's keen observation of a small marble foot, a foot such as might have been carved in an allegorical relief at the head of an Athenian decree, protruding from the rubble foundation of a mediaeval wall northeast of the Propylaea. The wall had been left in place because its mediaeval date had been questioned; but after Johnson had extracted four large inscriptions with hammer and drill, the Greek authorities decided that the foundations needed investigation. Johnson's share of the booty included a sepulchral colonette, an honorary decree of 287 B. C. (an exact duplicate, though more complete, of an inscription already known), and two stones of great historical importance. One was an honorary decree referring to a naval defeat of the Athenians in the Hellespont in 322 B. C.; the inscription gave the first clue to the locality of this battle, only vaguely mentioned by the historians. The other proved to be part of a treasure-list of the Parthenon, naming as the secretary of the treasurers Glaucetes, whom Demosthenes accused of stealing the sword of Mardonius, a trophy of the battle of Plataea; curiously enough, the small fragment includes a description of this very sword. The cleaning of Christian graves inside the Erechtheum in 1915 revealed many inscribed fragments, including pieces of a well-known record of the interest paid by the Athenian state on sums borrowed from various temple treasuries. At the same time C. W. Blegen extracted several inscribed pieces, face down and therefore previously unnoted, from the Christian aisle foundations of the Erechtheum; some contained names of officers and crews of Athenian triremes.

Less spectacular is the work on the pieces brought long ago from the Acropolis to the Epigraphical Museum, work which is in part the revision of well-known inscriptions, and in part the piecing together of fragments as yet unidentified. But even this may have the thrills of the picture-puzzle. One of the most notable Acropolis inscriptions is that known as the Hekatompedon inscription, containing the regulations for conduct within the Acropolis in 485 B. C., and carved on two second-hand marble metopes from the oldest temple of Athena. In spite of its familiarity, the first slab had always been mistaken for the second, and the second slab had never been pieced together, until Dr. Hill undertook the problem. Here, too, should be mentioned the studies of Edward Capps on the stones from the south slope, containing the records of dramatic victors in the Theatre of Dionysus. Of the same character have been the studies of the fifth century architectural inscriptions. Those of the Erechtheum, on account of their number and great intrinsic interest, have attracted the most attention. Washburn made the happy discovery that the lime-incrusted back of one of the Erechtheum slabs bore traces of letters, which resolved themselves into a con-

tinuation of the same inscription. Less pleasant was the result of Dinsmoor's accidental discovery that fragments of two different Erechtheum inscriptions fitted perfectly, back to back, forming one and the same stone; for the upper half of the same slab, in the British Museum, is by no means as thick, and the back is roughly hewn. Consulting, in the hope of explaining this discrepancy, Chandler's story of the discovery of this slab in 1765, he read that it had originally been thicker, but that the lime-incrusted back had been chipped off in order to make it more portable—and on those chips were the specifications for the building of the Erechtheum! But the greater part of the work on the Erechtheum inscriptions is due to Caskey, whose painstaking restoration of missing letters, interpretation of doubtful architectural terms, and coördination with the actual building, have resulted in the definitive reading which will form a part of the monograph dealing with the temple. A few additional fragments were identified and arranged by Dinsmoor, carrying the record down to the year 404 B. C. But he was concerned chiefly with the more laconic records of the Propylaea, all carved on a single slab, of which only five fragments were known, and even of these some authorities were inclined to reject three; now the number of fragments has been enlarged to twenty, all accurately pieced together. Next, assembling twenty fragments already known, and one new piece, of the accounts of the Parthenon, he found that these again were inscribed on a single slab, in eight columns; this restoration yielded several new facts with regard to the history of the temple, such as the sources of the funds, the date of the pediment sculptures, the names and dates of contemporary Athenian officials. Another series of six fragments, earlier in date, resolved themselves into a single slab inscribed in three columns; and these apparently were the accounts, covering nine years, of the erection of the colossal bronze statue of Athena Promachos, which stood between the Propylaea and the Erechtheum.

Most of these inscriptions and new readings have already been published in the form of special articles. Some of the later examples have also appeared in Kirchner's revised edition of Volume II of the *Inscriptiones Graecae*, and those of earlier date will appear in the corresponding edition of Volume I, to be published by Hiller von Gaertringen toward the close of the present year. But for the complete commentary and analysis of the accounts of the Erechtheum and the Propylaea, it will be necessary to refer to the two monographs to be issued by the School.

THE PUBLICATIONS OF THE SCHOOL

From the earliest days of the School's existence, the Managing Committee has devoted much attention to the adequate publication of the results of investigations made by its officers and students. As early as 1885, a volume of *Papers* devoted to the researches carried on during the first year was issued. Its contents—a study of inscriptions from Assos and Tralleis, by J. R. S. Sterrett; careful studies of three of the great monuments of Athens, the Theatre of Dionysus, the Olympieum, and the Erechtheum, by J. R. Wheeler, Louis Bevier, and H. N. Fowler respectively; and an essay on

the battle of Salamis, by Professor W. W. Goodwin—suggest at once the problems that interested the first members of the School and the need at that time of satisfactory accounts of even the great buildings of Athens itself. In 1888, three more volumes appeared. Two were devoted to the results of exploring expeditions in Asia Minor conducted by Dr. Sterrett in 1884 and 1885, the other was again made up of several articles, including "The Athenian Pnyx," by J. M. Crow, and "The Theatre of Thoricus," by Walter Miller and W. L. Cushing, interesting as the first accounts of excavations conducted by members of the School, and a long and scholarly essay, "On Greek Versification in Inscriptions," by Professor F. D. Allen.

In 1889, an arrangement was made with the *American Journal of Archaeology*, whereby the editors agreed to publish all suitable papers offered by the Managing Committee, with the proviso that these articles might afterwards be gathered together and republished in separate volumes if the Committee so desired, an arrangement which is still in force. The Committee has twice exercised its right and issued (in 1892 and 1897) Volumes V and VI of the *Papers* of the School. In these volumes, most of the articles have to do with the results of excavations—at Sicyon, Icaria, Anthedon, Thisbe, Plataea, Eretria, Sparta, and the Argive Heraeum — and contain original material to which later students of the antiquities of these sites must constantly refer. Others, however, like C. L. Brownson's "On the Relations of the Archaic Pediment-Reliefs of the Acropolis to Vase-Painting" and H. F. DeCou's "The Frieze of the Choragic Monument of Lysicrates," continue the tradition of intensive study of the monuments of Athens; and others still, such as "The Chorus in the Later Greek Drama, with reference to the Stage-Question," by Edward Capps, emphasize the important part which literary, as well as archaeological studies, have always played in the programme of the School.

The excavations at the Argive Heraeum, which were undertaken jointly by the School and the Archaeological Institute in 1892 and continued for four seasons, presented a new problem. Preliminary reports of the results were published in several articles in the *American Journal of Archaeology* and then reprinted in Volume VI of the *Papers*, and a *Bulletin*, issued separately in 1892, gave a fairly full account of the first campaign. But as the work progressed, it became evident that a satisfactory presentation of the results could be obtained only by the publication of one or more volumes devoted exclusively to this important site. Accordingly, the School and the Institute entered upon an agreement for joint publication, and ultimately (in 1902 and 1905) the two sumptuous volumes entitled *The Argive Heraeum*, with many illustrations, plans, and drawings, were issued. The authors were Charles Waldstein and several officers and members of the School (G. H. Chase, H. F. DeCou, T. W. Heermance, J. C. Hoppin, A. M. Lythgoe, Richard Norton, R. B. Richardson, E. L. Tilton, H. S. Washington, and J. R. Wheeler). In the spirit of modern research, these volumes attempt to present everything of importance discovered by the explorers and thus to make all the results of the excavation available to scholars everywhere. Some of the theories advanced, especially in regard to the bronze age in Greece, have not been generally accepted, but

the two volumes will always remain important sources of information in regard to one of the most ancient and most important of Greek sanctuaries.

By the beginning of the present century, therefore, certain general principles for the publications of the School had been firmly established, namely, that articles of moderate length should normally appear in the *American Journal of Archaeology*, but longer monographs, for which full illustration was desirable, should be issued as separate volumes. *Annual Reports* and occasional *Bulletins* had also been printed as a means of acquainting the friends and supporters of the School with its progress.[1] In accordance with this policy, most of the numbers of the *American Journal of Archaeology* in recent years have contained at least one "Paper" of the School. Two separate volumes have been issued, *Explorations in the Island of Mochlos*, by R. B. Seager (1912), a highly important contribution to the history of Crete in the early bronze age, constantly quoted by later writers, and *Korakou, a Prehistoric Settlement near Corinth*, by C. W. Blegen (1922), in which, for the first time, the development of culture on the Greek mainland during the earlier bronze age is comprehensively studied. Two other separate publications, *The Erechtheum*, containing the admirable drawings by G. P. Stevens and text by several authors, and *The West Slope of the Acropolis and its Monuments*, by W. B. Dinsmoor, are approaching completion, and will, it is hoped, be issued in the near future. Plans have also been made for a somewhat elaborate presentation of the excavations at Corinth.

[1] In the *Annual Reports* are printed not only the reports of the Chairman of the Managing Committee, the Director, and the Annual Professor, but also the Treasurer's financial statement, the regulations of the School, announcements in regard to fellowships and information for prospective students.

A review of the papers published in the *American Journal of Archaeology* since 1897 reveals the fact that they number more than ninety and cover a wide variety of subjects. On the whole, however, the two kinds of studies which are most represented in the earlier papers also predominate in the later articles. Many have to do with different aspects of the excavations at Corinth, such as descriptions of newly discovered buildings, or careful studies of statues and inscriptions. The *Journal* for 1903 contains six papers on the interesting discoveries made at the cave near Vari in Attica, that for 1904 six others on the work carried out at Oeniadae in Acarnania. Similar in character are the reports of Miss Harriet Boyd (now Mrs. Hawes) on "Excavations at Cavousi, Crete, in 1900," and of Miss A. L. Walker and Miss Hetty Goldman on "Excavations at Halae." On the other hand, the perennial interest of the great buildings of Athens is attested by many papers, especially in the years since 1903, when a Fellow in Architecture or Architect of the School has normally been in residence every year. To this category belong "The Metopes of the West End of the Parthenon," by W. S. Ebersole, with better descriptions and illustrations than had been available before; "The Gables of the Propylaea," "The Choragic Monument of Lysicrates," and "Attic Building Accounts," by W. B. Dinsmoor; and "The East Stoa of the Asclepieum," by Gordon Allen and L. D. Caskey. The minute study of the Erechtheum, in preparation for the projected book on that complicated building, is reflected in "The East Wall of the Erechtheum," by G. P. Stevens, with its convincing proof that this wall contained a window on either side of the great door, and in "The 'Metopon'

in the Erechtheum," by L. D. Caskey and B. H. Hill. Even the Parthenon itself has been made to yield new evidence in regard to its earlier history in B. H. Hill's "The Older Parthenon."

This brief summary will serve to suggest the character of what may be called the "official" publications of the School. But these are far from representing the sum of its contributions to our knowledge of the life and thought of the ancients. In a number of cases, the work of its members has appeared in other journals than the *American Journal of Archaeology*. Sometimes this has been due to an accumulation of material which made prompt publication in the usual way impossible, sometimes it has seemed appropriate to offer a particular contribution to another journal. As early as 1894, Professor J. W. White published his detailed and careful discussion of the Pelargikon in the age of Pericles in the Greek *Ephemeris Archaiologike*, and later members of the School have sometimes followed his example. D. M. Robinson's monograph, "Ancient Sinope," appeared in the *American Journal of Philology* in 1906, after he had published as a School paper his "Greek and Latin Inscriptions from Sinope and its Environs." W. B. Dinsmoor's illuminating "Studies of the Delphian Treasuries" were brought out in the *Bulletin de Correspondence Hellénique*, the official journal of the French School at Athens, which seemed the logical place for articles dealing with the results of excavations conducted by that school. And, for similar reasons, several other articles by members of the School have appeared in other periodicals, both American and foreign.

Finally, in an indirect way, the School may fairly claim some credit for many of the books produced by American scholars during the forty-one years of its existence. One is tempted, indeed, to argue that all the scholarly work of its past members might be listed in this category, since all of it undoubtedly owes much to the knowledge and inspiration gained in their years or months of residence in Athens; and few of the writers, I think, would deny the lasting influence of their contact with "the things themselves" and with the men and women whom they met at the School, whose tastes and interests were similar to their own. But such a list as this idea implies would far exceed the space allotted to this account. I shall, therefore, mention only a few books, whose authors, I am sure, would be the first to acknowledge their indebtedness to the School. The *Handbook of Greek Archaeology*, written by H. N. Fowler and J. R. Wheeler, with the collaboration of G. P. Stevens (1909), which is generally admitted to be the best introduction to the subject in any language, comes naturally to mind, since both the authors were members of the School during its first year and served it as officers for many years and Mr. Stevens was the first Fellow in Architecture. M. L. D'Ooge's *The Acropolis of Athens* (1908) and C. H. Weller's *Athens and its Monuments* (1913) show throughout the detailed knowledge which comes only from long familiarity with the monuments themselves. The *Greek Sculpture* of R. B. Richardson (1911) was largely written during the years when he served as Director of the School. J. C. Hoppin's monumental *Handbook of Red-Figured Attic Vases* (2 vols. 1919) is the work of a scholar whose term of residence in Athens is among the longest and who has also been an officer of the School. The two volumes on *Athenian White Lekythoi*

(1907 and 1914), by Arthur Fairbanks, and those on Arretine pottery, by G. H. Chase (*The Loeb Collection of Arretine Pottery*, 1908; *Catalogue of Arretine Pottery in the Museum of Fine Arts*, 1916), would hardly have been produced, had the School not had a part in the training of their authors. *Gournia*, by Mrs. C. H. Hawes, and *The Decorative Art of Crete in the Bronze Age*, by Miss E. H. Hall (now Mrs. Dohan), which are among the important contributions made by Americans to the history of the brilliant Minoan civilization, are the work of members of the School, through whose enthusiasm the officials of the Museum of the University of Pennsylvania were persuaded to undertake excavations in Crete. G. W. Elderkin's *Problems in Periclean Buildings* (1912) was largely inspired by his years of residence in Athens; and W. W. Hyde's *Olympic Victor Monuments and Greek Athletic Art* (1921) and Rhys Carpenter's *The Esthetic Basis of Greek Art* (1921) may be cited as among the most recent books in the production of which the School at Athens may claim a share. Likewise Mitchell Carroll's edition of *The Attica of Pausanias* (1907) and his *Greek Women* (1907) found their inspiration in his sojourn in Athens as a member of the School. In lighter vein R. B. Richardson's entertaining *Vacation Days in Greece* (1903) may be noted. And even books in which things Greek play so subordinate a part as the *History of Sculpture*, by H. N. Fowler (1916) and the *History of European Sculpture from the Early Christian Period to the Present Day*, by C. R. Post (2 vols. 1921) would probably never have been written except for the authors' residence in Greece.

American scholars are often charged with being less active in research and publication than those of other countries, and with some reason. Most of them are more heavily burdened with teaching and administrative work than foreign scholars, and until quite recently, at least, no such foundations for the encouragement of research have existed in this country as most European nations have enjoyed for many years. But the record of the School at Athens shows that even under these conditions Americans have made important contributions to the advancement of learning. With the larger endowment now in prospect and the added equipment assured by the munificent gift of the Gennadius Library, the friends of the School may confidently look forward to even more notable contributions from its members.

THE OPPORTUNITIES OF THE SCHOOL IN THE BYZANTINE FIELD

The time has long since gone by when classical scholars looked with disdain on the artistic products of the Byzantine era. The older conception of a Chinese immobility within the Byzantine Empire has been completely exploded, and a sounder genetic view of the mediaeval Hellenic development has taken its place. Scholars have come to see that the products of the Hellenic genius evolved in mediaeval times, be they artistic or literary in form, semi-classical or popular in tone, are of value *per se* for the proper understanding and estimate of this epoch, and for their connections with the great nexus of civilization which spread itself aforetime over the Nearer East.

This new point of view, however, has as yet not become thoroughly lodged in the consciousness of that section of the intelligent public which is interested but takes no active part in archaeological investigation; this is particularly true of the Anglo-Saxon world. It would therefore seem desirable to

sketch briefly some of the results attained in this field already, to touch on the more important monuments hitherto published, and to point out wherein such investigations offer a fruitful and valuable field for further study.

France was the first country to take up Byzantine studies seriously. The great scholars of the seventeenth century, Charles du Cange, above all, and the Benedictines of St. Maur, by their indefatigable labors laid the foundations, broad and deep, on which the edifice of modern Byzantine scholarship has been reared. France again it was, beginning with the seventies of the last century, who revived the neglected activities in this field, beginning with the work of Alfred Rambaud. Much of the best work which has been done in the Byzantine field on Greek soil falls to the share of French scholars. Beginning with the nineties, the dynamic personality of Karl Krumbacher inspired a mighty increase of interest in these studies both in Germany and elsewhere; his greatest achievement was the foundation of the *Byzantinische Zeitschrift*, which became the central organ of the new branch of learning. Some three years later the establishment of the Russian Byzantinist organ, the *Vizantiiskii Vremmenik*, brought about the centralization and organization of this work in Russia, in its turn mightily furthered by the establishment of the Russian Archaeological

The Monastery of Daphni near Athens.

Institute in Constantinople, which was primarily devoted to work in this field. Since that time labor has gone on uninterruptedly and indefatigably, until at the present day almost every civilized country can boast of several scholars who are working in some part of the field of Byzantine studies.

Greece proper is relatively barren in monuments of this epoch which are artistically of the first magnitude, but of subsidiary material there is no lack. Even so in the magnificent mosaics of the monastery of St. Luke in Phocis and that of Daphni near Athens we we have glorious specimens of Byzantine monumental art at the very height of its development (pp. 251, 253). The amplitude and symmetrical character of the composition and the masterly treatment of pose and drapery are characteristic of monumental Byzantine art at its best, but are strange to most people, who are acquainted only with the sterile and schematic works of the decline. From a later period there remain to us the enthralling ruins of Mistra, the capital first of the Frankish princes of the Morea and later of the Greek despots, which are so extensive and so well preserved that the city may of right pretend to the name of the Byzantine Pompeii. A barren mountain spur some three miles from Sparta is sown with ruins of houses and palaces; among them is preserved a whole series of fascinating churches, coated from top to bottom with the most elaborate and marvelously preserved frescoes. Some of these contain picturesque and dramatic elements, while the mosaics of the older period reflect, as it were, the solemn splendor of the ritual. The single heads of the Prophets and Patriarchs show wonderful mastery of individual characterization. This is seen in the Zachariah and in the prophets from the church of the Pantanassa (pp. 254, 255). It would be hard to equal these in the thirteenth century in western Europe, unless, perhaps, in the work of Giotto. These ruins form the subject of a splendid publication of Gabriel Millet, wherein those which are capable of being photographed are so reproduced, while sketches represent the more seriously damaged specimens. Should we wander further afield, the monasteries of Thessaly on the precipitous crags of the Meteora, the great masses of the monasteries of Mt. Athos, the mosaics and churches of Salonica, and the churches of Macedonia and Serbia form fields where only the first preliminary work of reconnaissance has been done in many cases.

On the shore of Asia Minor and on the Anatolian plateau many districts are almost untouched by the investigator, and the work of Stryzgowski on the Armenian churches, of Jerphanion on the Cappadocian cave frescoes, and of Sir William Ramsay and Miss G. Bell on Bin Bir Kilissé shows what far-reaching and astounding discoveries can be awaited in these barren uplands. The rich archaeological deposits of Georgia and Lazistan have only begun to yield their stores to the investigator. For all of these places Athens forms a peculiarly excellent base of operations.

But apart from the more obvious things, there is hardly a site in Greece where the excavator does not come across Byzantine materials, whose lessons are often not only valuable as imparting to us the concluding chapter of the history of a given site, but are of value for themselves as well. How brilliantly interesting this may become is shown for example by Gelzer's work on Pergamon in the Byzantine period, and the fascinating book of Wiegand

From G. Millet, Le Monastère de Daphni.

The Crucifixion. Mosaic at Daphni.

Zachariah. Mosaic at Mistra. *From G. Millet, Mistra.*

on Latmos. In a word, the study of the Byzantine remains will certainly be a useful and often an important by-product of the study of classical sites.

Such are some of the opportunities for the general study of the concrete artistic remains. Even more promising is the field which awaits the investigator in the more specialized branches of Byzantine study. A rich line of investi-

From G. Millet, Mistra.

A Prophet. Mosaic at Mistra.

gation awaits the epigrapher; for, though his harvest will not be as great, nor his results as valuable, perhaps, as those of his confrère who devotes himself to the inscriptions of the classical period, much more remains to be done

in this field. The fourth volume of Boeckhs' old *Corpus* is the best collection we have at present.

No small amount of documentary materials awaits the investigator in the archives of the various monasteries and churches. Much of this, it is true, is late in date, but much is still available of high value and of considerable antiquity on Athos, Patmos, and elsewhere.

The stores of manuscripts in the monasteries of Mt. Athos, while primarily of late date, contain none the less many *codices* of great value. The catalogue of Lampros does not include the most important libraries of the Holy Mountain, namely, those of Vatopedi and the Lavra. The homiletic and hagiographical manuscripts are merely noted as such by him, and are not described in detail. The hagiographical material still buried amid musty parchments offers a fruitful field for investigation for the publication of texts, for their historical evaluation, and for the compilation of catalogues of hagiographical texts and other manuscripts.

Much has yet to be done in studying and photographing the miniatures which adorn the *codices*, in making careful descriptions of them, and in classifying and assigning them to a given time and milieu.

All the above points are the more timely since internationally organized undertakings are aiming to compile and ultimately to publish *corpora* of the Byzantine inscriptions and of the Greek charters, while the École des Hautes Études is collecting a *corpus* of photographs of the miniatures in Greek manuscripts. On the lives of the saints, the indefatigable and whole-hearted Bollandist fathers continue the work begun two centuries ago.

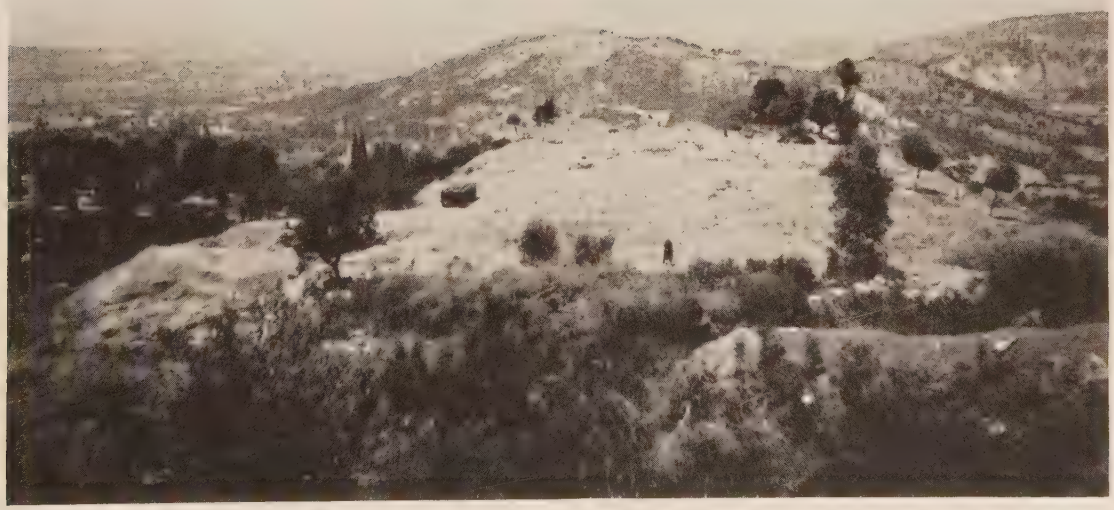
It would thus seem that with the acquisition of the new library at Athens, and with the central position of that city for investigations in the Aegean Basin, in Asia Minor, and in the Balkans, a wide and fertile field would here be open to American scholarship. The prosecution of labors in this connection is all the more vital since the Russian Archaeological Institute in Constantinople, which has devoted itself exclusively to this field, has been obliged perforce to suspend operations. Let us hope, then, that American scholarship will make its appearance here and contribute its quota towards the study of that culture which twice has lit the flame of science and civilization on the rude altars of western Europe.

THE EXCAVATIONS AT COLOPHON

The most recent work undertaken by the School is the excavation of Colophon, one of the important cities of ancient Ionia. This is a joint enterprise of the School and the Fogg Art Museum of Harvard University, made possible by the generosity of an anonymous friend of the Museum, who offered to its Directors the sum of $50,000.00 for a five-year campaign of excavation on one or more Greek sites. In the early summer of 1921, Dr. Hetty Goldman, who had been appointed Field Director by the authorities of the Museum, and Dr. Hill, as Director of the School, made an extensive survey of possible sites, and finally recommended Colophon; and last spring work was actually begun under the direction of Dr. Goldman and Dr. Blegen, with most encouraging results.

From Smyrna a broad plain, ringed with mountains, stretches south. Here, against the western hills, at a distance

of some twenty-five miles, is the site of an ancient city. Behind it, to the south and west, rise fir-covered hills, blocking it from the sea. A half-day's journey by one pass through the hills brings one to the ancient port of Notium or New Colophon, near which lay the famous shrine of Clarian Apollo, and by another pass the more western port of Lebedus was reached. Low, broken spurs from the hills straggle northward into the plain, and separate a sheltered circle from the wide stretches beyond. On the highest spur of all, backed against the hills and running out into the enclosed valley, lay the acropolis of the ancient town. At the peak was a tower, and from it rough walls of ashlar masonry ran down steeply on either hand and then swung north, marked by occasional towers, following around the ridges and dipping across the breaks, so as to form a circle of defence some three miles in circumference. Through a gate in the gap to the east ran the road to Notium, through another at the north the road to Smyrna, and through a western gate the road to Lebedus. Through the heart of the valley in which the city lay runs a little brook fed by never-failing springs in the neighboring hills, and just to the west of the city another rushing stream, lined with plane and walnut trees and tall, waving poplars, turns the nine mills of the modern Turkish hamlet of Deirmendere.



Colophon: Looking north from Acropolis; in foreground, Public Square on terrace of Acropolis.

Colophon: Ancient Wall.

For some years past this site has been identified as that of ancient Colophon, which, according to tradition, was a flourishing town when Agamemnon sacked Troy. Some say that Calchas, the famous seer of the Trojan expedition, was buried there. The cavalry of Colophon was proverbial throughout antiquity. In the sixth century B. C., Gyges, king of Lydia, captured the city, and later it fell to the Persians. After the Persian wars, Colophon was important enough to be a member of the Ionian League, though her contribution to the common treasury was rather small. Probably, like the other Ionian cities, she profited by the conquests of Alexander, till suddenly, at the beginning of the third century B. C., an end was put to her existence. Lysimachus, one of Alexander's generals, who fell heir to this section of Ionia, planned to make Ephesus the leading city of his dominions, and to that end not only built great fortifications there, but stripped Colophon and Lebedus and other lesser towns of their inhabitants to fill his enlarged city. Afterwards, Notium, or New Colophon, as it was sometimes called, attained to considerable importance, but the older site never ranked again as an important independent city.

The explorations carried out last spring proved conclusively that this site is really that of ancient Colophon. The quantities of bronze coins recovered leave no doubt. On many the name of the city appears, on many the image or the lyre of her patron god, Apollo, and

on very many a youth with lance in hand bestrides a prancing horse, showing that the traditional fame of the cavalry of Colophon was more than an empty tale.

Beyond the city walls, in various localities, groups of tombs were found. At one spot these proved to be of the fourth century B. C.; elsewhere they were rich in pottery with geometric decoration, not exactly like anything so far known, but probably of the sixth century B. C. or earlier; and in one place tombs were found which, judging by their contents, were surely of the Mycenaean period. One, in fact, which had unfortunately been broken into, was a well-built beehive tomb of the Mycenaean sort. Here, then, is proof that at the end of the second millenium before Christ the civilization of Ionia was practically identical with that of mainland Greece, Crete, and the Aegean islands. Further search may reveal the Mycenaean town to which Calchas came, on his return from ravaged Troy.

The city of the sixth century probably lies beneath that of the fourth century, on the acropolis. Where soundings have been made to virgin rock, geometric pottery has been brought to light. But further investigation of the older city must wait until the later one has been fully studied. It seems now as if this would yield more information than has yet been obtained in regard to the plan of any Greek city of twenty-three centuries ago. In the valley, trial trenches have revealed the foundations of several very large structures, probably public buildings begun when the city walls were built in the period of prosperity following Alexander's conquests. It may be that the sudden end of Colophon's career cut short these civic developments before the buildings were completed.

The hill of the acropolis is literally covered with the remains of dwelling houses, terrace on terrace rising with the slope. On the main terrace, about half-way up, several large dwellings, with living quarters, rooms of state, stairs, stables, and wells inside the courts, have been cleared. The plans are quite intelligible and fairly uniform. No Greek houses of such early date have hitherto been known except a very few at Priene, and there later constructions, of the second century, have seriously confused the plans. Between the city blocks of Colophon ran streets paved with cobbles or with dressed and fitted slabs of stone. Beneath the streets lie well-made drains of terracotta pipes. At one point on the terrace is a bathing establishment, not yet wholly excavated. In this there were at least five large rooms, some with hydraulic arrangements, and in one room there formerly stood fourteen small bath tubs of terracotta ranged side by side. Elsewhere on the terrace the city fathers of the fourth century laid out a large public square; houses and streets that interfered were condemned, and on their levelled foundations rose long, colonnaded stoas to enclose the square. Here the story of the infancy of monumental city planning is clearly told.

Beside these relics of civic and domestic life, a sanctuary of the Great Mother, Cybele, shows the religious side of Greek society. No normal Greek temple stood in this *temenos*, but instead there were a propylon, a high, stepped platform for the image or the great altar, rooms for lesser divinities or for priests, and from end to end of the outer edge of the terrace on which the sanctuary lay a long colonnade. Another campaign should complete the

Colophon: Paved street between houses.

clearing of this *temenos* and perhaps bring to light one or more temples of the normal Greek type.

From this account it is clear that Colophon is a most promising site and that, for the next few years, it will furnish an opportunity for training in actual excavation to many members of the School. Much, also, remains to be done at Corinth, where it is hoped that the long-interrupted work may soon be resumed. Many prehistoric sites await exploration, as well as important sites of the classic period. In the exploration of the regions recently made more accessible to the explorer the School must do its share. Finally, for those whose interest lies in the later phases of Greek civilization, there are almost unlimited opportunities for researches in Byzantine history and Byzantine art, researches for which the Gennadius Library will furnish most valuable aid.

One need not be a great optimist to predict that the future work of the School will increase the reputation which it has already won.

ARCHAEOLOGICAL NOTES AND NEWS

XXth International Congress of Americanists

The XXth International Congress of Americanists was held in the Engineers' Club, Rio de Janeiro, Aug. 20–30, 1922. There was a large attendance of delegates from North and South America, and the European representation was better than had been expected. The delegates from the United States, representing the Government and various institutions were: William T. Bryant, Buffalo Museum of Natural History; Mitchell Carroll, Archaeological Institute of America and School of American Research; D. C. Collier, School of American Research; Peter H. Goldsmith, Carnegie Endowment for International Peace; Walter Hough, U. S. National Museum; Ales Hrdlička, U. S. National Museum, and American Anthropological Association; S. G. Morley, Carnegie Institution of Washington; H. J. Spinden, Harvard University; Marshall H. Saville, American Museum of Natural History and Heye Museum of the American Indian; and W. P. Wilson, Commercial Museum of Philadelphia.

H. E. Dr. Epitacio Pessoa, President of Brazil, was elected Patron of the Congress; Dr. A. C. Simoens da Silva, President; and Dr. A. Morales de los Rios, Secretary General. Among the Honorary Vice-Presidents, Drs. Goldsmith, Hough, Saville, and Wilson, and among the Honorary Secretaries, Drs. Bryant, Carroll, and Spinden were included. The Active Vice-Presidents were: Dr. Ales Hrdlička, for the United States; Dr. Levy-Bruhl, France; Miss Adele Breton, England; Dr. William Thalbitzer, Denmark.

There were twelve sessions for the reading of scientific papers and ninety communications in all were presented. The papers and discussions covered a wide field. Among the subjects considered, of most interest to Americans were the following: The Paleolithic Theory in America, by W. H. Holmes; Antiquity of Man, by Ales Hrdlička; The Mexican Excavations at Teotihuacan and Pedrogal of San Angel, conducted by Manuel Gamio, and presented by J. Reygardus Vertiz; Archaeological Studies in the Argentine Republic, by Dr. Salvador Debenedetti; Guarany Ethnology and Civilization, by Dr. M. Bertoni; Cultural Parallels among Arctic Peoples, by Dr. W. Thalbitzer of Copenhagen Museum; Some Unpublished Manuscripts in the British Museum bearing on Pre-Columbian Brazil, Miss Adele Breton: Contributions to the Archaeology of South America, by Dr. Franz Heger, of Vienna; Turquoise Mosaic Art in Ancient Mexico, by Marshall H. Saville; Comparative Chronology of the Old and New World, and Civilization in the Humid Tropics, by H. J. Spinden; Chronological Yardstick of Ancient America, and Researches at Tulum, Mexico, by S. G. Morley; The Ethnological Collection from the Amazon in the U. S. National Museum, and Fire Origin Myths of the New World, by Walter Hough; The Petroglyphs of Guadaloupe, by Jules Claine; and a Comparative Study of Mediterranean and Pre-Columbian American Architecture, by Mitchell Carroll.

The Congress unanimously voted to hold its XXIst International Session in Holland and Sweden in 1924 and an invitation was favorably considered to hold the XXIInd International Congress of Americanists in Philadelphia in 1926, in connection with the Sesqui-Centennial Celebration.

School at Athens: Letter from Prime Minister in reply to Mr. Root's Letter about the Gennadius Library (ART AND ARCHAEOLOGY, *September, 1922*)

Excellence: Athènes le 6 Juillet 1922.

J' ai eu l'honneur de recevoir votre aimable communication par laquelle vous voulez bien m'annoncer ainsi qu'aux membres du Cabinet sous ma présidence, que la Carnegie Corporation a affecté une somme de 200,000 dollars pour l'erection a Athènes d'un bâtiment destiné a recevoir la Bibliothèque et autres collections offertes à l'École Americaine d'Études Classiques d'Athènes par S. E. Monsieur Joannes Gennadius, ancien Envoyé Extraordinaire et Ministre Plénipotentiaire de Grèce à Londres.

Mes collègues du Cabinet me chargent de vous transmettre ainsi qu'aux membres de la Carnegie Corporation nos chalereux remerciements pour la genereuse donation qui servira à ce monument.

Le Gouvernment Hellénique est heureux de disposer a cet effet d'un terrain avoisinant l'École Americaine. A l'occasion du dépôt du projet de Loi pour l'expropriation du terrain en question, l'Assemblée Nationale m'a chargé de vous exprimer toute la gratitude que la donation de la Carnegie Corporation a provoquée parmi ses membres.

Il nous est particulièrment agréable de pouvoir contribuer à resserrer encore plus les liens intellectuels qui unissent si heureusement nos deux peuples.

(Signed) P. E. PROTOPAPADAKIS,
Président du Conseil des Ministres du Royaume de Grèce.

BOOK CRITIQUES

AMERICAN SCHOOL OF CLASSICAL STUDIES AT ATHENS

KORAKOU

A Prehistoric Settlement near Corinth

BY

CARL W. BLEGEN, PH. D.

xv×139 pages and 8 plates, of which 5 are in color.

The excavations of which this book is the official report brought to light stratified remains of the bronze age and made possible a classification of pottery of the Greek mainland between 2500 and 1100 B. C. Besides the pottery, walls and floors of houses and various objects of minor art were discovered, by means of which the picture of the civilization that preceded the "Mycenaean" age and of that age itself is made clearer.

The price of the book is $5.00, but to members of the Archaeological Institute a reduction of 25% is offered, making the price $3.75.

The Publication Committee also offers two of the earlier publications of the School at greatly reduced prices, as follows:

Waldstein's Argive Heraeum (2 volumes), bound in cloth, $20.00; unbound, $10.00.

Seager's Explorations in the Island of Mochlos (boards) $3.00.

Checks should be made payable to the Chairman of the Publication Committee, Professor George H. Chase, 12 Shady Hill Square, Cambridge, Mass.

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Andrea Della Robbia and His Atelier. By Allan Marquand. 2 vols. Princeton University Press, 1922.

All lovers of the Florentine art of the 15th and 16th centuries will rejoice that Professor Marquand has so soon been able to add the "expected" monograph on Andrea to those on Luca and Giovanni della Robbia. His first volume, devoted to the art of Luca della Robbia, was not only a work of fine discrimination and thereby of the utmost scientific value, but also a distinct contribution to the inspiring pleasures of human life.

In the monograph on Giovanni della Robbia which followed it, the scientific interest was perhaps rather exclusive of aesthetic appreciation, as if the author felt that he had exposed in the earlier volume all that was needful to an enjoyment of Robbian art. But in this monograph, while the scientific mind is gratified by the array of documents and the helpful comparison of artistic motifs, the reader will find, scattered through the pages, a wealth of illuminating comment, that can not fail to lure him on with undiminished eagerness.

The monograph is divided naturally into two parts:

1. The monuments which can with some degree of certainty be attributed to Andrea himself.

2. Those which for the present at least must be regarded as the work of the Atelier, without determining their definite relation to the master or to the individual pupils and assistants.

In each class the arrangement is by decades, beginning with the year 1470. At this time Andrea's uncle, Luca, had reached the age of seventy. Andrea was his most distinguished pupil and his natural successor in the business, the direction of which was doubtless already passing into his hands. Hence it is reasonable to suppose that Andrea, at the age of thirty-five, had no longer to depend on his uncle for all the designs of the increasing number of works ordered from the atelier in the Via Guelfa. For an indefinite period, however, the execution would be marked by certain features of Luca's handling. By 1480 Andrea had developed an individual style, as the Annunciation at La Verna and Osservanza Coronation amply prove (see Figs. 40 and 45), and these two master-pieces have a "decorative charm" that, added to the refined handling of a religious subject, establishes Andrea's claim to high rank among the exponents of Florentine art.

It would be a pleasure to follow this development through the long series of works so well illustrated in the two volumes, if only to make

evident what a store of delight awaits the reader, but the limitations of space forbid.

These limitations prevent also any adequate discussion of the questions which must arise in the mind of one familiar with most of the works described. Professor Marquand presents his lists and attributions with a disclaimer of finality, granting that while many of the works may be documented and dated, there remain an immense number subject to future revision. This need not frighten the reader who is more interested in art than in archaeology, though he may not be able to see that Andrea has represented the Virgin with "bare knees" (Fig. 2), certainly not evident in the photograph, nor in the Cantigalli cast; that the Virgin is not supporting the child with her right hand, while clouds are under his feet (Fig. 277). It is also the Archangel Raphael who is conducting Tobias (Fig. 138) instead of Gabriel as stated; but the last two are small matters. More important is a certain amount of confusion, especially noticeable in the second volume, produced by the somewhat arbitrary arrangement of the works in decades, combined with subject grouping; also the lack of a list of illustrations with location of the work, which would facilitate the search for an individual example, and the comparison of one with others.

The make-up of the volumes, like that of the preceding ones in the series, is a worthy product of the Princeton Press.

R.

Etruscan Tomb Paintings: their Subjects and Significance. By Frederick Poulsen (trans. by Ingebord Anderson). New York: Oxford University Press, 1922.

The Romans were not very different from other nations in their careless historical attitude toward peoples who once upon a time were their superiors. Each decade brings new evidence that the great people of early Italy were the Etruscans.

The publication and illustration of Greek vase painting, and Roman wall painting and relief sculpture, and Egyptian and Hittite tomb and relief decoration have been throwing new light on the every day lives of those peoples. Nearly a hundred years ago many tombs of the Etruscan nobility were opened and the wall paintings in them noted in a cursory and unscientific manner. Those paintings, although sadly marred by vandalism and faded by dampness, are fortunately engaging renewed attention. A German named Weege has done some very good work, and a mass of unpublished Etruscological material of all kinds is forming under the hands of C. Densmore Curtis, Asso-

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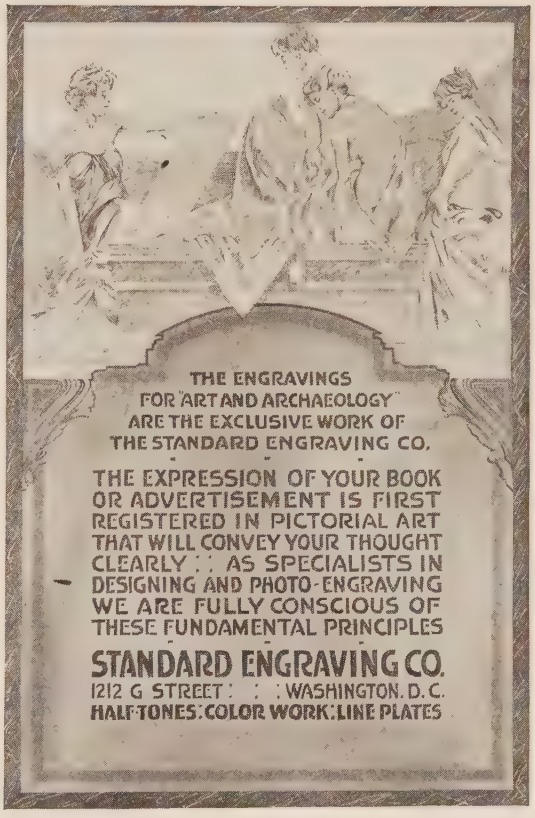
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ciate Professor in the School of Classical Studies of the American Academy in Rome.

The book here under review, although very brief, is of particular importance because it contains forty-seven clear plate figures, and especially because its author is the Keeper of the classical department of the Ny Carlsberg Museum in Copenhagen, where are the facsimiles and drawings of many wall paintings of Etruscan tombs made some thirty years ago.

Poulsen has followed the correct method of chronological comparison of style and matter, giving extraneous influence on technique and decorative detail a proper but subordinate place. He finds in the *Tomba Campana* at Veii ornamentation like that of seventh century B. C. Greek vases, where no narrative element is present. He then traces the development of style and content through various tombs, identifying scenes from Greek myths with certain variations.

These two types of decoration had their vogue before strictly funeral scenes began to appear in the tomb wall paintings, and in the verve of the work, and in the richness of accessories to banquet, funeral processions and ceremonies, Poulsen sees a corresponding Etruscan military, political, and social greatness.

By a comparison of work in one tomb, the *Tomba del Barone*, at Corneto, where certain marks made in Greek by the decorator explained the noticeable Ionic influence on the painting, with that of many others, the author seems to have arrived at some very sensible conclusions about the Etruscan outlook on life and death.

There is a group of tombs, of which that of the Chariots (*tomba delle Bighe*) is typical, dating about 500 B. C., in which the wall painting has very much in common with the late black and early red figured Attic vases. He finds also decoration which comes from other places, such as the pointed cap (tutulus) that seems to be Hittite in origin. In one painting the "widow" is portrayed with her sunshade, an oriental fashion that Greek women had adopted by the time of the Peloponnesian war (Aristophanes, Knights, 1348, σκιάδειον).

The nicest piece of work which Poulsen does is to demolish the arguments of Weege and others that all women depicted at banquets with men are hetaerae. He shows incontrovertibly that in these tomb paintings the women at the banquet couches are brides or matrons.

The translation into English by Ingebord Anderson—for the book was originally published in 1919 in Danish as a Museum guide—is excellent.

RALPH VAN DEMAN MAGOFFIN.

Johns Hopkins University.

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CONTENTS

PITTSBURGH AS AN ART CENTER

INTRODUCTION—"PITTSBURGH AS AN ART CENTER" . . . . . *Samuel Harden Church* . . . 267
PITTSBURGH AND THE PITTSBURGH PLAN . . . . . *Frederick Bigger* 269
Eight Illustrations
PITTSBURGH ARCHITECTURE . . . . . *Alfred B. Harlow* 279
Seven Illustrations
CARNEGIE INSTITUTE . . . . . *Homer Saint-Gaudens* . . . 287
Ten Illustrations
CARNEGIE INSTITUTE INTERNATIONAL EXHIBITION . . . . . *John O'Connor, Jr.* 301
Six Illustrations
PITTSBURGH ARTISTS PAST AND PRESENT . . . . . *Penelope Redd* 313
Eight Illustrations
SOME COLLECTIONS OF PAINTINGS IN PITTSBURGH . . . . . *Will J. Hyett* 323
Seven Illustrations
CIVIC ART IN PITTSBURGH . . . . . *George M. P. Baird* 331
Eight Illustrations
THE COLLEGE OF FINE ARTS, CARNEGIE INSTITUTE OF TECHNOLOGY . *E. Raymond Bossange* . . . 337
Six Illustrations
THE ONE HUNDRED FRIENDS OF PITTSBURGH ART . . . . . *John L. Porter* 345
Four Illustrations
THE ART SOCIETY OF PITTSBURGH . . . . . *Edwin Z. Smith* 349
THE ASSOCIATED ARTISTS OF PITTSBURGH . . . . . *Christ Walter* 351
ARCHAEOLOGICAL NOTES AND NEWS 352

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*Died August 13, 1922.

"The Studious Blacksmith," by Daniel Chester French, Sculptor. Detail of Anderson Memorial, Pittsburgh, Pa.

ART and ARCHAEOLOGY

The Arts Throughout the Ages

VOLUME XIV NOVEMBER-DECEMBER, 1922 NUMBERS 5–6

PITTSBURGH AS AN ART CENTER

Introduction by SAMUEL HARDEN CHURCH, *President of the Carnegie Institute*

THE story of Pittsburgh is the story of a great achievement in the building of a city. Its development has had from the very beginning an even balancing of forces—industrial, moral, intellectual, and artistic—which makes for a truly great community.

The city has been blessed in many ways beyond the ordinary conception of the great material wealth with which nature has so generously endowed it. It was blessed in the first Pittsburgher, George Washington, who established the location of the city by choosing it as the site for a fort. It was blessed in the outcome of the struggle which took place in and about that fort between England and France, and it was again blessed in the decision in 1785 that assigned Pittsburgh and its surrounding territory to Pennsylvania instead of to Virginia and thus aligned the city with its strategical importance and great resources on the side of the Union in the Civil War. Pittsburgh has been especially blessed in its citizens. In its beginning they were the men and women who had the courage to leave the older, more comfortable and more cultured settlements to conquer a continent for civilization. There are many evidences in the community that in spite of great difficulties they carried with them their cultural development. One of these is the University of Pittsburgh which was founded in 1787 as the Pittsburgh Academy.

Of the citizens of a later day, Andrew Carnegie is a splendid type. He was constantly in the habit of speaking of the transmutation of material things into things of the spirit. It was his munificent gifts which made possible the Carnegie Institute with its Library, Museum, Music Hall, its Department of Fine Arts, and finally, its most important department, the Carnegie Institute of Technology. The art life of Pittsburgh now very properly centers about the Institute. The Annual International Exhibition of Contemporary Paintings, unique among

art exhibitions in America and the medium through which many of the European artists have been introduced to this country, was in a sense his idea. He also made possible the College of Fine Arts at the Carnegie Institute of Technology from whence Pittsburgh's future Reinharts, Alexanders, Cassatts and Tanners are to come.

The Carnegie Institute was not set down in a community which was unappreciative or was not prepared for it. Pittsburgh's Art Society, which this year will celebrate its Fiftieth Anniversary, was one of the organizations which prepared the way. The great Loan Exhibition which marked the opening of the Carnegie Institute Building in 1895 was arranged by this organization. In that exhibition there were over three hundred representative works most of which had been lent by Pittsburghers, another evidence of the healthful state of art in the city then.

The Secretary of the Art Society at that time was John W. Beatty, born and bred a Pittsburgher, who as a young art student had followed in the footsteps of Twachtman, Duveneck, Sherlaw and Chase in Munich. In 1896 Mr. Beatty was selected as the first Director of Fine Arts at Carnegie and when he was made Director Emeritus last July he was the Dean of American Art Directors in years, honors, and achievements.

In the twenty-seven years which have elapsed since the opening of the Institute, art in Pittsburgh has made great strides. The lovers of art in Pittsburgh, especially through the twenty-one Internationals which have been held, have acquired a better knowledge of modern art than the art lovers in any other city in the world. The Carnegie Institute has secured an excellent collection of contemporary paintings. The children of Pittsburgh are being made acquainted with the best that has been accomplished in architecture, sculpture, and painting. A strong and active organization of Pittsburgh artists has come into being, and a group of men and women known as "One Hundred Friends of Pittsburgh Art" have banded together to purchase the works of local painters for presentation to the public schools. The Schenley Farms, the district in which the Carnegie Institute is located, has been developed in a very remarkable manner, until now no city in America has a similar cultural center. A public spirited organization "The Citizens Committee on City Plan of Pittsburgh" has already laid out in a broad and farsighted way a plan which will govern the future physical development of the city.

Pittsburgh, like many other American cities, is just now emerging from the post war period. It is looking forward to newer and greater achievements in the building of the city and in that building Art will have no second place. Pittsburgh will be, as in the past, a city whose citizens see life steadily and see it whole.

PITTSBURGH AND THE PITTSBURGH PLAN

By FREDERICK BIGGER

Architect and Town Planner, Citizens Committee on City Plan

PROBABLY no large city in the United States has a location of greater natural beauty than has Pittsburgh,—nor a site so difficult, so seemingly unsuited to be the home and workshop of an industrious people.

If one were to view the city and adjacent territory from above, when the late afternoon sun brings the upper western slopes of the ridges and the multitude of serrated hills into high relief and casts the eastern slopes and ravines into deepening shadow, the old physiology textbook's picture of the convolutions of the human brain would be brought instantly to mind. There would appear, however, one marked difference in that the landscape is distinctly divided into three parts. Two great rivers, the Allegheny and the Monongahela, wind across the country, gradually converging, and unite to form a third—the Ohio.

Broken by an occasional island in the Allegheny and a group of larger islands in the Ohio, the rivers lie each in a valley, often rather narrow, sharply defined by high and steep hills. In many cases the hills rise so close to the water's edge as to leave but a narrow shelf wide enough only for a highway or a railroad, or perhaps both. Here and there a more or less ample valley, bringing its tributary creek to the river, breaks through the barrier of hills, while with greater frequency deep gullies and ravines are gashed through. It is the frequent recurrence of these ravines and gullies which give the hills their serrated appearance.

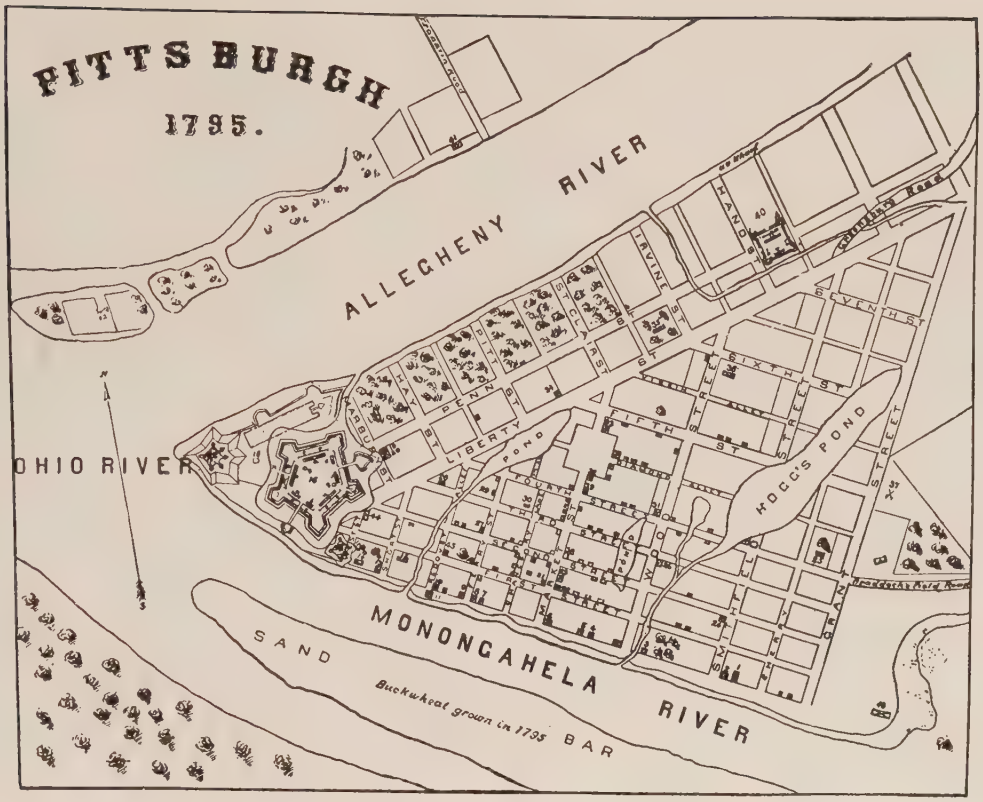
For miles along the river valleys are towns and villages occupying low land or the easier slopes where the hills recede farther from the river, the latter sweeping in a great arc around the town. The highways and railroads following the river, bordered by industrial plants or straggling houses, appear as tenuous connections between the thriving towns. In fact the aerial observer does not see below him one single compact city, nor can he discover any indication of the boundary line within which lie Pittsburgh's forty-six

Pittsburgh as seen from Grandview Park (Mt. Washington).

square miles of area and her six hundred thousand people. He must remind himself that the city is but the nucleus of a metropolitan district with seventy-nine political units and a population of over a million people most of whom live within an irregular area of about sixty-six square miles.

Returning to the bird's eye view. There appear three areas of a character somewhat different from the general topography. The first of these is the land between the Allegheny and Monongahela rivers extending from the point of their intersection eastward somewhat less than a mile. Here are about two hundred acres of land apparently as level as one may find. At the eastern side of the area a considerable hill rises in such a fashion as to leave narrow strips of level land between its flanks and each of the rivers. This three-sided area is the downtown business district, familiarly known as "The Golden Triangle." From it bridges carry traffic to the north and south, and thoroughfares lead eastward along the river level strips or clamber around and over the hill toward the East End. The East End district has a large irregular area of rather even table land broken into by, and merging with, easy rolling hills surrounding it. Here too are the ubiquitous ravines and gullies but there are, nevertheless, many acres of densely populated residence land which extend farther eastward, over the city boundary line, into the adjacent town of Wilkinsburg. The East End district contains an important secondary business center known as East Liberty, a name which applies to a main line station of the Pennsylvania Railroad in that locality and is known to travelers who pass through the city over that road. The third significant area noted above is on the north side of the Allegheny and Ohio rivers, across from the downtown business district, and extending some distance to the west. This area is reasonably level and low and is densely built up, except for a park and some railroad yards. It is a part of the North Side, formerly the City of Allegheny.

The more one sees of the surprising and erratic topography of the Pittsburgh district the more is one amazed at the forces which have lead human beings to build a city here. Some of the hills are covered with streets and buildings, others stand steep, barren and unbuildable, save perhaps for a road climbing tortuously to a higher level. Great hillsides and bluffs, too



Plan of the Old City, now the Down Town Business District.

steep to build upon, overlook thriving communities and form barriers which compel circuitous travel and long detours in passing from one part of the city to another. Some of the hillsides are of exposed rock and shale, others have a scrubby growth of vegetation among which scrub locust and sumac are conspicuous. The hills throughout the district vary in elevation as much as five hundred feet and from the higher ones there are striking views.

One of the most interesting views is that from Grandview Avenue, some four hundred feet above the Monongahela river, lying along the crest of the precipitous bluff which parallels that stream on the South Side. Accessible by funicular railways (known locally as inclined planes or "inclines") or by a circuitous trolley car route to "Mt. Washington," this viewpoint can be reached from the three principal railway terminals of the city in from five to twenty minutes. Any traveler with fifty minutes or more at his disposal, who goes to Grandview Avenue, whether it be daylight of evening, will never forget the remarkable view down upon the skyscrapers of the business district, the rivers, the railroads, and the mills in the river valleys.

Having scanned the landscape carefully, one realizes that Pittsburgh is a city in which are many isolated settlements and communities, difficult or indirect of access. It is said that quite a number of these districts are never visited by residents of other localities. Close observation leads one to accept this statement as true. As an indus-

Pittsburgh as seen from Duquesne Heights.

trial center, Pittsburgh's population by the 1920 census shows that there are but 36.8 per cent native whites of native parentage, while there are 47.2 per cent of foreign parentage or foreign born (26.8 per cent of the former and 20.4 per cent of the latter). The foreign born, of many nationalities, show the natural tendency to live in groups according to nationality. This tendency, combined with classifications of an economic character which appear inevitable, is often further intensified by the physical segregation induced by the rough topography. When there is superposed upon this a political system and custom which makes it possible for the inferior politician to play off one district against another, it is small wonder that city wide civic aspiration has been feeble. This in spite of the existence of organizations, maintained and operated by the faithful few, which have enviable records of accomplishment.

The early history of Pittsburgh centers around a fort begun by the English, finished and named Fort Duquesne by the French, and superceded by a larger British stronghold called Fort Pitt. Nothing remains of the fort save a part of the old redoubt built by Colonel Bouquet and known as "The Blockhouse." It is located on Penn Avenue quite near the Point, and is nearly surrounded by railroad property. About the fort there grew up gradually a settlement which was approached by travelers from the east upon the old highway over the mountains leading into the town along the route now occupied by Penn Avenue.

Before widening (40 feet)—Second Avenue—After widening (80 feet).

The settlement was the gateway to the west, travelers here taking to the Ohio river, the great natural artery to the frontier.

The first plan of lots in Pittsburgh, known historically as the military plan, covered the area bounded by Water Street, Second Avenue, Ferry and Market Streets. It was laid out in 1764 by Colonel John Campbell, an English army engineer. Twenty years later, in 1784, Colonel Woods and Thomas Vickroy were authorized by the William Penn heirs to extend the plan to cover the area which is now the downtown business district. A drawing from this plan, dated 1795, is illustrated here. It shows that the present business district, obviously not foreseen when the plan was made, has developed with streets which are narrow and for the most part unsuited to the present development (p. 271).

For one hundred and six years Pittsburg has had no plan for its development. Like practically all cities of the country, with the notable exception of the national capital, Pittsburgh just grew, haphazard, and with apparently less effort rather than more effort to overcome the natural handicap of the topography. For it must be evident to those who have read thus far that the location of the city is such as to imply the greatest and most urgent need of thorough and accurate engineering surveys and careful planning.

City planning for Pittsburgh acquired its greatest impetus, if not its beginning, in 1910 when the Pittsburgh Civic Commission, under the leadership of H. D. W. English, financed the making of a number of studies. Most important of these was the study of "Pittsburgh, Thorofares and the Down Town District" prepared by Frederick Law Olmsted. Shortly after this, Mayor William A. Magee secured the passage of acts of Assembly giving the city two new departments of its government,—

The beginning of the Schenley Plaza Development. Designed by Sellers and Register, Architects.

a department of city planning and an art commission. These bodies, which are appointive, were created in 1911. Then followed years of arduous and seemingly fruitless struggle to replace haphazard procedure by orderly procedure and foresighted methods of planning. During this time many individual meritorious projects were conceived, but public ignorance and the resulting councilmanic indifference combined to make progress slow. In the meantime, however, two very excellent pieces of work were carried on; one a study by the Pittsburgh Flood Commission (an unofficial body) of flood prevention and flood control; and the other a series of transit studies made by E. K. Morse, a member of the original city planning commission and later City Transit Commissioner.

Finally, late in the year 1918 and after much consideration, there was formed the Citizens Committee on City Plan of Pittsburgh. Its purpose was to prepare comprehensive plans for the future development of the city, and to inform the public, through an intensive educational and publicity campaign, of the need for and the purpose of city planning. The leaders in forming this Committee were two members of the Art Commission, Charles D. Armstrong and W. L. Mellon, and the then president of the Civic Club of Allegheny County, James D. Hailman, who had been a member of the original city planning commission. With these three some fifteen or more other men of wealth and influence joined. Since that time many individuals and firms have subscribed to the committee's funds. Financially the scheme calls for the expenditure of approximately two hundred and fifty thousand dollars. This fund goes entirely into the making of studies and plans, the publishing of reports and the educational campaign.

The work of the Citizens Committee is nearing completion. It is hoped that by the end of the present year it will be possible to issue three reports which are not yet complete—namely a study of

parks and general recreation, a study of street car transit facilities of various kinds, and a study of rail and water transportation lines and terminals. Two reports have already been issued. "Pittsburgh Playgrounds" appeared in June 1920. "A Major Street Plan for Pittsburgh" appeared in September 1921.[1]

In the meantime the municipal department of city planning, which took on a new lease of life about the time of the formation of the Citizens Committee, has been engaged in making studies for the zoning of the city. This is authorized by an act of Assembly prepared and advocated by the Civic Club of Allegheny County. An ordinance regulating the use of all property and the height and bulk of all future buildings is nearing completion as this article is written. These regulations are to be fully explained in public meetings to be held in every section of the city. It is hoped the ordinance will be passed by city council not later than January, 1923. For those unfamiliar with zoning it should be stated that no more important city planning measure exists, and no measure which involves less financial outlay in application.

The major street plan proposed by the Citizens Committee is a scheme or plan of main thorofares so arranged as to facilitate the circulation of traffic. The plan calls for twenty-two miles of new streets or extensions and one hundred and eight miles of street widening, and it includes eighty-six routes of travel of varying length and importance. It is a plan for execution in the coming years, and the idea is that any main thorofare projects which are undertaken shall be made to conform to this general plan.

[1] Readers desiring these reports should address the Citizens Committee on City Plan, First National Bank Building, Pittsburgh. A charge of fifty cents is made for the street report.

There are three especially significant phases of the major street plan. One of these involves what are called metropolitan district thorofares, that is, main streets through the city which connect and lead out into main county highways. The Committee states its belief that these highways should be properly connected and amplified to provide adequately for the indefinite increase in vehicular traffic which they will be called upon to carry. There are seventeen such thorofares in the plan, and probably another will be added when a major highway plan of Allegheny County, soon to be studied by county officials, has been completed. Some of these metropolitan district thorofares, skirting the hillsides as they do, present engineering problems of great difficulty and cost. Another phase of the plan relates to the provision of proper thorofares to give access to, and encourage the development of, a number of districts which now lie partially or entirely undeveloped and dormant and where housing facilities for many thousands of people could be provided. And a third phase of the plan, which arouses much interest locally, is the proposal for by-passing through traffic around the business district.

As the result of a very careful traffic count and analysis it was discovered that at least eighteen percent of the traffic which enters the congested business district is "through traffic." A system of thorofares has been devised to encourage such traffic to pass around the district rather than through it. This by-pass system consists largely of existing streets which should be widened or otherwise improved, together with new connections. The latter to include three river bridges in locations where none now exist. The

proposed arrangement will permit traffic approaching the Triangle from any direction to flow naturally into a traffic circuit of streets forming centric triangles, which circuit it will follow until the radial street of exit is reached.

Concluding its discussion of the problem of congestion in the business district the Committee calls attention to the vicious circle of increasing traffic;—rise of property values, enlarged bulk of buildings, and more people, renewed demand for street widening, actual street widening, followed by a new increase of traffic and still greater congestion. It is urged that, if the future growth of Pittsburgh upon a sound economic basis is to be assured, these facts must be faced and a scientific solution of the problem must be found.

Planners in other cities have, in approaching the playground problem, selected a number of localities where playgrounds are obviously needed, have recommended that the grounds should be acquired and developed, and in a number of cases they have indicated around a given site the extent of the district which the proposed playground will serve. The Citizens Committee carried its study and recommendations farther and has devised a method of procedure which is unique and promises greater ultimate results. Emphasis has been placed primarily upon the distribution of the playgrounds and the whole city area has been divided into nearly one hundred "service districts" rated in order of the urgency of their needs. Each of these service districts, as nearly as possible, is of such a size that any child living therein will have not more than a fifteen-minute walk to a playground which is already, or in the future may be, located somewhere near the center of the district. The rating of these service districts is based upon four factors, (1) the density of the general population within the district as stated in terms of persons per gross acre of land, (2) the number of children of school age (6–16 years) living within the district, (3) the number of children and youth of the district who in one year were recorded as delinquents by the Juvenile and Morals Courts, and (4) the existence within a district of either a large number of foreign or negro families or the existence of bad housing conditions or poor sanitation.

A particularly important feature in the recommendations is the inherent flexibility of the scheme provided for adapting it to the changing character and increasing development of different portions of the city. It is recommended that, every three or five years, the basic statistics enumerated above be again collected and the various service districts be re-rated in accordance with the changed conditions. It is obvious that such a scheme will keep the playground plan a live one and prevent it from becoming obsolete and outgrown.

In the playground report, as in the major street report, there is made clear the necessity for considering a program of development in the next twenty or thirty years, and it is proposed that any playground projects which are undertaken shall be made to conform to the general scheme.

Readers familiar with city planning procedure in other cities will have recognized a similarity between the activity of the Citizens Committee on City Plan of Pittsburgh and that of the Chicago Commercial Club. In both cases the large funds necessary for adequate plans have been raised by private subscription. However, a strik-

ing individuality exists in the Pittsburgh method of producing the plan. The Pittsburgh organization has a rather large membership; it has an executive committee of fifteen and a number of sub-committees of seven or eight members each. Each of the five principal divisions of the plan is studied by the technical staff and the problems and suggested solutions are placed before the respective sub-committees. The latter discuss the proposals in detail and quite exhaustively. The technical staff is placed in the position of having to sell each idea to the committee. Following this the proposals, as tentatively adopted, go before the executive committee for further consideration. In this manner it is possible to avoid the casual endorsement of a plan by men who are only partially aware of the proposals and the reasons therefor. Instead of that, a plan is produced which is known in detail to the members of the committees, a plan which they can not only safely support but which they are, as co-authors, willing to back actively and energetically.

It is perhaps appropriate to mention civic art and its relation to the Pittsburgh Plan. There is a general misconception of this subject and a tendency, even upon the part of some capable planners, to consider civic art a separate subject related but casually to the utilitarian and so-called practical problems of municipal improvement. One of the principal difficulties in securing public improvements which have artistic merit lies in the disordered and disproportionate expenditure of revenues for municipal needs, together with the compulsion which frequently rests upon a politically-hounded, over-handicapped and impulsively-energetic executive who is forced to "get things done." To point out the difficulties is naturally the first step toward discovering the methods by which they may be overcome.

There is an essential art element in municipal improvement. Any development which may be made can be judged as to its artistic merit. Good, bad or indifferent, some verdict is inescapable. Whether we are concerned with a building, a bridge, an open space, a single street or a city, the beauty of the fundamental structure (which is the essential beauty) is only to be secured through the exercise of both artistic designing ability and the ability to design construction so as to assure economy and safety. Granted that the utilitarian problem must be adequately solved, it must be remembered that no application of ornament or color, no matter how profusely used, can conceal the inferiority of a structure which is poor in its fundamental artistic design. In one of the reports yet to be issued the Citizens Committee will probably endorse this point of view. It will be made clear that the Committee considers civic art to be largely the direct result, the by-product, of orderly methods, rather than an after-thought or something achieved by the application of a beauty nostrum.

Oliver Building. D. H. Burnham & Company, Architects.
Trinity Church. Gilbert A. Lloyd, Architect.
Tower of First Presbyterian Church at right.

PITTSBURGH ARCHITECTURE

By Alfred B. Harlow, F. A. I. A.

NOT so many years ago, there still stood here and there facing the narrow streets of old Pittsburgh, the pleasing front of an old house; its doorway graced with fan lights patterned in lead or wood and its delicately fluted columns and graceful iron rail, reminiscent of the Colonial work in the Eastern settlements of an earlier date.

So it was that the simple charm of the old houses of Philadelphia, New York and Boston inspired the early builders of Pittsburgh as they came to build their dwellings and establish the lines of industry that have grown and expanded, making the city great. We may say that architecture in Pittsburgh began with these early domestic buildings which established a style of distinction and maintained it through a century of vacillatory architecture. Gradually this Colonial work has disappeared and the old streets, now, wide and busy, are fronted with small warehouses, transitory and waiting for better things to come.

Of a later period, however, we have an excellent and well preserved example in an old dwelling in lower Penn Avenue built in the fashion of the Neo-Grecian nearly a century ago. This building, occupied for the past forty years by the Pittsburgh Club, expresses quality and elegance in a high degree, both within and without. Its front on the street remaining unaltered, maintains its personality with a dignity and repose amidst its changing environment. Thus again as in the early days, there is found here and there a building of merit wherever there existed discrimination and desire for quality in design.

After these early periods, Pittsburgh floundered as did the whole country in semi-classic, and in muddy Gothic. Church work has, however, in some instances held a better record. Trinity Church down town on Sixth Avenue, of which Gilbert A. Lloyd of Detroit was the architect, is dated by its cornerstone as of the year 1870. The towering spire develops from a square, vigorously buttressed base, its subtle transition as it climbs, from a square tower form to a graceful tapering octagonal spire has been admirably handled by the designer and it is a joy to behold. An addition in the background is of another generation. The First Presbyterian Church standing beside Trinity groups with it in an atmosphere of tranquillity and peace in the heart of a busy city which we believe will never be disturbed.

Henry Richardson came in 1885 and built the Allegheny County Court House, his grandest work. Its superb tower has the quality of greatness: it soars skyward against the clouds as one gazes up along its rugged walls: it is without equal in modern work. The manner of the whole building is so simple in its quiet forceful way that it seemed an easy style to follow, but only the master could follow, and so it came to pass that in the ensuing years much that was dreadful sprang into being under the name of Richardsonian.

This riot of bulging rock faced towers and sand bag columns was routed in 1893 when the world had seen the beautiful white Renaissance city of the Chicago Exposition. There came then a turning back to the Colonial and the

Allegheny County Court House. H. H. Richardson, Architect.

Allegheny County Soldiers Memorial. Palmer and Hornbostel, Architects.

Georgian, the English parent of the Colonial. One of the first houses of this period is the Holmes house in Fifth Avenue, designed by Peabody and Stearns, a charming adaptation of the old Bulfinch house which for many generations dominated Beacon Hill in Boston. From that time on, much of the domestic architecture in Pittsburgh has been built in the Colonial or Georgian style with Early English now and then, and occasionally a later Gothic flurry.

Two notable churches of recent years, Calvary and the Baptist Church in Schenley Farms, by Cram, Goodhue and Ferguson, are exceedingly beautiful structures, monuments to faith and appreciation in clergy and vestry as well as to the enthusiasm and inspiration of the architects. Pittsburgh possesses many other fine examples of Church architecture, among them St. Agnes in Oakland, a splendid work in brick by the late John T. Comes.

The Schenley Farms District abounds in buildings of merit, the Pittsburgh Athletic Club, exceedingly graceful in composition and in delicately modelled detail, the Soldiers Memorial, the Carnegie Library Buildings, the Carnegie Technical School group, a very dignified High School Building, and much in the way of domestic architecture that is exceptionally good.

The first building of the skyscraper type built in Pittsburgh was the Carnegie Office Building and in this building also the steel skeleton frame was for the first time used in the city. Its erection in about 1895 was a matter of much interest. Following this, came

St. Agnes Church. John Comes, Architect.

First Baptist Church. Cram, Goodhue and Ferguson, Architects.

Calvary Church. Cram, Goodhue and Ferguson, Architects.

Frick Building. D. H. Burnham, Architect.
Carnegie Office Building to the right. Longfellow, Alden and Harlow, Architects.

Pittsburgh Athletic Association. Jansen and Abbott, Architects.

rapidly the Frick Building adjoining the Carnegie Building, the Peoples Savings and Trust Building, the Farmers National Bank Building, the Oliver Building, the First National Bank Building and many others grouping together in the skyline of the city. These buildings are all in the Classical or Renaissance style.

The William Penn Hotel merits classification with the best in hotel buildings. One's attention is arrested as the carefully studied mass and detail of this structure presents itself.

Pittsburgh's new buildings during the past two decades have been well designed and built in the most thorough manner and the widened streets and newly created open areas offer other opportunities which we may be assured will in the future develop buildings worthy of the standards already established.

The Carnegie Institute. Alden and Harlow, Architects.

THE CARNEGIE INSTITUTE

By HOMER SAINT-GAUDENS

Director of Fine Arts

SOMEWHAT more than a generation ago there had been living in Pittsburgh for fifteen odd years, a Scotch master of iron and steel by the name of Andrew Carnegie; a man possessed of ideals that led him into the realm of imagination and of a power of organization that could make practical these ideals. Looking forward through the smoke and dust of the industry he had created, he saw, not far away, the time when mankind would have surrounded itself with the needs and comforts of life created by that industry, and would have provided itself with periods of leisure hitherto unknown. He was wise enough to divine that when that time arrived, if mankind wished to continue to progress through the ages as it had already come forward, it must, of necessity, seek the exercise of its spiritual side in the development of all that makes for the beauty and happiness of life.

The very rewards of Mr. Carnegie's industry had placed him in a position to offer mankind the greatest opportunities for this development; nor was he a person to shirk responsibilities of such a position. Mr. Carnegie's wealth was to him a "trust," of which he had become executor. He rightfully felt that he could devote this "trust" to no higher purpose than to aid in gratifying these noblest aspirations of mankind. So he set forth on the development and creation of a gift, founded on the unique notion of gathering together under one head a Technical School, where mankind could learn to better its physical needs, and a Museum, a Music Hall, a Library, and a Department of Fine Arts, where it could develop its mental and spiritual powers. This gift he called the Carnegie Institute.

It did not spring Athena-like, full-grown, from his mind at once. It developed rather from a comparatively modest proposal in which, with no idea of a Museum or a Department of Fine Arts in view, in 1881 Mr. Carnegie offered to give $250,000 for a Free Library in Pittsburgh, provided the city would agree to appropriate the sum of $15,000 annually for its maintenance. At that time the city had no power to raise by taxation money for the maintenance of such an institution; so it was not until 1887 that an enabling act was passed by the Legislature, and Mr. Carnegie was notified that the city was in position to perform its part if he would renew his offer.

By then, however, Mr. Carnegie had developed new ambitions for civic betterment, with the result that in February, 1890, he wrote another letter in which he stated that, as Pittsburgh had greatly increased in size and importance, he was convinced that more extensive buildings than had at first been planned were needed, buildings which would provide accommodations for Reference and Circulating Libraries, for the exhibition of Art, and for a Museum, as well as an Assembly Room for various learned societies.

He suggested, also, the erection of Branch Library Buildings. To provide these structures, he offered to expend not less than $1,000,000 and proposed placing their erection and control in the hands of a Board of Trustees of eighteen members, nine to be named

Staircase leading to the Department of Fine Arts, Carnegie Institute. Mural painting "The Crowning of Labor," by John W. Alexander.

Hall of Architecture, Carnegie Institute. Great cast in left is of West Portals of Abbey Church of St. Gilles.

Gallery of Sculpture Hall, Carnegie Institute, as arranged for Exhibition of Art and Science in Gardens.
Marble group in foreground is "THE PRODIGAL SON," by George Gray Bernard.

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"PORTRAIT OF MRS. C.," by William Merritt Chase. In the Carnegie Institute Collection.

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"The Penance of Eleanor," by Edwin A. Abbey. In the Carnegie Institute Collection.

by himself, and the other nine to comprise the Mayor, the Presidents of Select and Common Councils, the President of the Central Board of Education, and five members of city councils.

On May 31, 1890, the ordinance accepting this second proposition was passed, and after a competition Longfellow, Alden and Harlow were selected as architects. In 1891 the city authorized the Board of Trustees to erect the main structure on part of the nineteen acres of park land recently acquired from Mrs. Schenley, and on Tuesday, November 5, 1895, the building was dedicated to public use. Shortly after the opening of the Library, provision was made by Mr. Carnegie for a Department of Fine Arts under the direction of Mr. John W. Beatty, who resigned as Trustee to accept the position, and for the Department of the Museum under Dr. William J. Holland, who acted in a similar manner.

It was but a few years after the opening of this Central Library, however, before it became evident that it had become outgrown. Whereupon, Mr. Carnegie again gave the Library Board the sum of $5,000,000 to enlarge this edifice. This new building, designed by Alden and Harlow, was formally opened in April, 1907.

In the meantime during 1900, with the material development of his fellowmen ever in his thoughts, Mr. Carnegie tendered the City of Pittsburgh $1,000,000 for the establishment of a Technical School on condition that the city provide a suitable site. The execution of the commission and the administration of the funds he entrusted to the Board of Trustees of Carnegie Institute. As a result, by 1903 a site of thirty-two acres adjacent to the Institute was offered by the City and accepted by the Trustees. The design by Mr. Henry Hornbostel was chosen from the number of competitive plans

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"The Judgment of Paris," by Emile René Ménard. In the Carnegie Institute Collection.

submitted and the foundations of the first group of buildings of the present Carnegie Institute of Technology were laid in 1905. Since that time added gifts from Mr. Carnegie have made possible the erection of four additional groups of buildings to meet the growth of the undertaking.

Finally in 1916 the Hall of Music, which was originally under the direction of the Library Trustees, but which since 1904 had been operated by funds given by Mr. Carnegie, became a department of the Institute; and in the same year, the Carnegie Library School for the training of librarians, originally supported by the Library, was endowed as a department of the Institute.

The Institute now embraces the main Library and its branches, the Department of Fine Arts, the Department of the Museum, the Hall of Music, the Carnegie Library School, and, in separate buildings, the Carnegie Institute of Technology.

In this group of five buildings which comprise the Carnegie Institute of Technology, are located the six divisions under which the courses of instruction are arranged. They are concerned primarily with technical education. They offer courses in Engineering for men, courses in the Fine and Applied Arts for men and women, courses in the Industries for men, courses for women which combine the training for the home and for a profession, and the Division of General Studies which offers basic courses for all the other Departments. The Division of Co-operative Research offers courses in Psychology and Education to under-graduate students in the other divisions and to post-graduate students opportunities for research which lead to advanced degrees.

As already explained, the Library unit was the keystone of the Carnegie Institute building proper. It grew with extraordinary rapidity from a staff

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"The Grand Canal: Moonlight," by Henri E. Le Sidaner. In the Carnegie Institute Collection.

of sixteen and a book collection of 16,000 volumes until now, operating through the public, private and parochial schools, through playgrounds and settlement houses, and through stations in a limited number of mercantile and industrial establishments, it has a total of nearly one hundred and fifty agencies for the circulation of books.

In the course of development it was found that work with children was to play an important part in the history of the Library, with the result that in 1900 a class was formed to educate young women in technical library work and children's literature. Naturally enough, as soon as the purpose of the class became known, requests came from other libraries that members of their staffs might have the advantage of the training, so that in response to this demand the Training School for Librarians was organized and almost immediately its support was assured through the generosity of Andrew Carnegie.

Immediately adjacent to the Library in the Carnegie Institute building is the Music Hall in which the musical requirements of the community are helpfully fostered. Two public organ recitals are offered each week during nine months of the year, or approximately seventy-five recitals each season.

Mr. Carnegie's purpose in causing this series of recitals to be instituted was to "create in the people a love for music." Therefore, in accordance with the Founder's purpose, the musical policy of these free concerts has been shaped so as to coincide with his expressed

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"THE WRECK," by Winslow Homer. In the Carnegie Institute Collection.

view. They are not entirely entertaining, nor yet solely instructive; but seek to present such a discriminate combination of the two, as to invite at all times a genuine affection for the language of tones, as expressed by the great masters of music.

Another Department, that of the Museum, organized at the same time as the Music Hall, contains large galleries of Geology and Mineralogy, a Gallery of Vertebrate Paleontology, with its extensive and famous collections covering mammals, birds, reptiles, and fishes from modern days back through the ages of the giant Diplodocus which stands in the main hall, a Gallery of Invertebrates with its sponges, shells and crustacea, collections of insects and botanical specimens, and Archaeological and Ethnological sections. More than this, the Museum has gone into Numismatics, Ceramics, Textiles, Carvings in Wood and in Ivory, and Art Work in Metals. It is endeavoring to satisfy at once both the purely scientific taste and the popular taste from which, after all, scientific learning is developed.

Closely knit to the Museum, the Library and the Music Hall, as it should be closely knit with the lives of men, is the Department of Fine Arts. In a city so largely given over to material affairs, it aims to be the central spirit in all which tends to bring satisfaction to those sub-conscious aspirations for beauty which are struggling these days through the monstrous congestion of modern civilization. Its purpose is to make mankind, from wage earner to millionaire, realize the natural pleasure to be gained from attractiveness in its man-made surroundings; to disseminate the appreciation of art in its broadest sense among all classes of people; to keep in this, their own city, those who have means or taste beyond

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"SARASATE," by James A. McNeill Whistler. In the Carnegie Institute Collection.

the ordinary; to draw from afar others who will come to live and work among what should be known as pleasing and fortunate surroundings.

As it hopes to do in the life of the city so in the Institute building, the Department of Fine Arts greets the visitor whether he enters by the main doorway into the Hall of Architecture, or whether he sets foot in the building through the portals which it shares with the Museum. If it be the latter entrance, the stranger first sees the main panels of the decoration "The Crowning of Labor" which John W. Alexander placed on the walls of the stairway. The local host who is taking a stranger through this building can rightly say with pride that these paintings are the work of a Pittsburgh artist. Of them Mrs. Alexander, the widow of the painter, has written in part:

"In undertaking the decorations for the entrance hall of the Carnegie Institute, Mr. Alexander finally selected as a subject for the entire series 'The Crowning of Labor.' * * *

"In the panels of the frieze of the first floor the idea has been to show the energy and force of labor. These panels are filled with toiling figures seen in and out of smoke and steam from the furnaces, the immense harnessed energy of which is directed by labor into various useful channels.

"From these panels the smoke and steam rise up into the larger panels at the head of the main staircase, where emerges a mailed figure typifying Pittsburgh.

"Pittsburgh has been depicted as a knight in steel armor in order to suggest the strength and power of the city. Labor having reached its highest expression, the city is being crowned and heralded by hosts of winged figures, blending with the smoke and steam which have partially dispersed. These figures bear tributes to the city, such as Peace, Prosperity, Luxuries and Education. To the left of the mailed figure the ugliness and impurities roll away in clouds of dark vapor twisted into the forms and faces of grotesque demons. * * * "

The two other important features that greet the eye of the visitor by whichever entrance he takes to the

building, are the Hall of Sculpture and the Hall of Architecture.

The Hall of Sculpture built to the measurements of the Parthenon, beautiful in itself in proportion and design, with its white Pentelic marble columns and quiet green walls, creates at once an impression of harmony and beauty; and the statues and bas-reliefs installed there represent the great periods in sculpture from its beginning to the end of the Roman period.

The Hall of Sculpture leads to the Hall of Architecture, if indeed the visitor has not already entered directly by way of the latter room. The Hall of Architecture, too, contains the supreme examples of the great periods of art which illustrate the development of architecture from ancient times through the Renaissance period.

These collections were planned to create, by the dignity of the groups, an inspiring and uplifting sense of the glory of art, as represented by these masterpieces of all time. The average visitor may forget historical dates, but the impression will remain.

Here, for example, in the presence of the great cast of the façade of the Abbey Church of St. Giles, the visitor is struck by the dignity and beauty of Romanesque architecture. To his right are two Greek portals, and between them the beautiful Greek monument of Lysicrates, mounted on its high base. To his left is the Gothic Portal of Bordeaux, with its pointed arch and sculptured ornament; and on either side of it are examples of Renaissance architecture.

Now if the stranger returns to the Alexander decorations he will find that they will lead him upstairs to the Department's permanent collection of paintings, bronzes, and prints. The eclectic manner in which they have been chosen emphasizes the fact that the Department, both in its permanent collections and in its temporary exhibits, has desired to set forth the many phases of art expression and to set forth in its architecture, sculpture, painting, graphic and applied arts, the highest possible qualities of beauty, grace and harmony.

The paintings of the permanent collection represent the art of many lands. It is also contemporary, the oldest canvas having been painted within the past hundred years.

There are works from France, England, Holland, Italy, Norway, Belgium, Russia, Germany, and Austria; but America is naturally better represented than is any other country. The American works comprise in some measure the entire history of American art, beginning with the period of Benjamin West and ending with the present day.

French art is represented by such paintings as "Evening in a Studio" by Lucien Simon, "The Mirror in the Vase" by Edmond Aman-Jean, "A Vision of Antiquity—Symbol of Form" by Puvis de Chavannes, "The Judgment of Paris" by Emile René Ménard, and "Christ and the Disciples at Emmaus" by Dagnan-Bouveret.

The British painters, Sir Alfred East, Sir William Orpen, Sir John Lavery, Alexander Roche, and Maurice Greiffenhagen are each represented.

Two important paintings by Anton Mauve, and a fine example of the art of Jacob Maris, may be named as belonging to the art of Holland.

The works of American Art include many such paintings as the "Sarasate" by James A. McNeill Whistler, the "Henry Nichols" by Gilbert Stuart, "My Children" by Abbott H. Thayer, "Mother and Child" by George de Forest Brush, "The Wreck" by Wins-

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"Henry Nichols," by Gilbert Stuart. In the Carnegie Institute Collection.

low Homer, "River in Winter" by John H. Twachtman, and "Afternoon near Arkville, New York" by Alexander H. Wyant.

Besides paintings, the permanent acquisitions of the Department of Fine Arts include collections of prints, among which are examples of American wood engraving, groups of etchings by Charles Meryon and James A. McNeill Whistler, the "English Landscape Series" by John Lucas after Constable, and a collection of Japanese prints. The Institute also owns an important collection of original drawings, in which the fifty-eight drawings by Anton Mauve form a notable group.

The sculpture, aside from the antique in the Hall of Sculpture, comprises casts of figures and reliefs by Saint-Gaudens, French, MacMonnies, Rodin, Barnard, MacNeil and many others, for the most part contemporaries.

In addition to its permanent collections the Department has sought to rouse interest in the consideration of the modern evolution of art, its new trends, tendencies and diverse manifestations. Therefore, each winter it places before its public many examples of the various phases and styles of the achievements and experiments of the best modern artists.

First of all in importance is the Annual International Exhibition which for twenty-six years has been looked forward to by painters and art lovers. Averaging only about three hundred paintings, these exhibitions have been recognized as among the most important held either in Europe or America. It proposes to have works representative of the best of the present standard of art and taste; works both by artists of established reputation and those by young men and women who have yet to become known in the art world. Beginning with this season's exhibition the paintings will be gathered by Committees of artists themselves and awarded prizes by four of their number, two Americans and two Europeans, with the Director presiding and voting in case of tie. The Department each year has purchased a certain number of paintings from this exhibition, which as a clearing house of the best in American and European art attracts during the six weeks it is open many critics, amateurs and dealers from all parts of the United States.

This year, for the first time, seventy of the best paintings of the European contingent of the Twenty-first International are being sent on a tour of the country through six of the important museums.

In addition to the International Exhibition, through the winter months the Department runs a series of other exhibitions. These exhibitions fall naturally into two groups. The group that aims to assist the development of the local artists and the group that aims to bring art at large to Pittsburgh. In the first group come the exhibitions of the works of Pittsburgh artists, such as the Associated Artists of Pittsburgh and the Pittsburgh Architectural Club.

In the second group all manner of tastes are catered to with such exhibitions as, during this year for example: Stained Glass, Arts and Crafts, John La Farge, Artistic Toys, George Bellows, Theatre Models, Robert Blum, Cartoons, Philadelphia Artists, Municipal Art, Frank W. Benson, and the like will be shown.

Of course, in a general way all these exhibitions are educational. But more than that, the Department strives to educate, in a stricter sense of the word, both the young and old alike. For the children, the Institute conducts this

work especially through the agency of the Public Schools, where it has proven of unusual importance in the development of public taste in the community. The students of the entire eighth grade of the public schools, numbering almost eight thousand, and ranging in age from about twelve to fifteen years, come three times during the school year, with their teachers, as part of their regular school work, to visit the halls and galleries of the Department of Fine Arts.

For older persons the main work of the Department of Education is its lectures. During the winter and spring the Department gives two series of evening lectures and one series of morning lectures, ten lectures in all. The main theme running through the series is that art is for the people, as a part of their desire and existence. The majority of the lectures are informal in character and as many as possible are in the galleries themselves.

Here then in Pittsburgh is an exceptional opportunity for the development of art and learning as seen in relation to the life of its inhabitants. Pittsburgh is a city richly picturesque both in the romantic history of steel and in the masculine strength of its location; flung as it has been by the brown tumult of labor along the broken gullies and bluffs that line the junction of the Monongahelia, the Allegheny and the Ohio. It is a city filled with the varied imaginations of the many lands from which its inhabitant have come. It needs but the development of this imagination for its people to profit by its picturesqueness, to enhance their pleasure in life. Such an amplification is the function of Carnegie Institute. It can bring art, music, literature, nature and science in touch with our every-day life. It can show the people of Pittsburgh that these things should be something to which they should revert, not as a holiday pleasure or for seasonal interest only, but as a thing of as live and continuing interest as are those sensational topics that succeed one another on the first pages of the newspapers. It can make clear that just as there is efficacy in a stable physical tone, so people have need to give their eternal side free play.

Thanks to the wisdom and farsightedness of Andrew Carnegie's gift, there is an assured road ahead of those who are striving to show man that the great gift of life is beauty; that his future hope is in learning to walk hand in hand with the aesthetic and the material; that the subjects which the Institute covers widen his mental horizon, and make insignificant the vexations that even the most comfortably placed cannot escape.

THE CARNEGIE INSTITUTE INTERNATIONAL EXHIBITION

By JOHN O'CONNOR, JR.

THAT Pittsburgh, the city which teems with basic industries, of all American cities should have the only annual exhibition of paintings that is international in scope and the only one which deserves the title of American Salon, has been a source of no little trouble to European and cis-Alleghenian critics. There is no mystery in it for Pittsburghers because they have long since come to expect an International each year. Art lovers in "The City of Iron and Steel" are as well acquainted first hand with the names and technique of European painters as they are with Americans. They look forward each year to the International as the most natural event in the world. Pittsburgh's art year is built up around it. The truth of the whole matter is that Pittsburgh, of all American cities, deserves the American Salon because out of its own citizenry came the inspiration, the means, the plan and its development. Pittsburgh is proud of its International and of the important place it occupies in the development of art in America.

It should be set down in the beginning of this story of Pittsburgh's International that whatever of honor and glory there is in it should go to John W. Beatty, who from the opening of the Department of Fine Arts in 1896 until last July when he was made Director Emeritus, guided the destinies of the International. Mr. Beatty's ability as a painter, his study abroad, his able management of two notable loan exhibitions in Pittsburgh preceding the beginning of the International, prepared him for the task which eventually made him the Dean of American Art Directors in years, accomplishments and honors.

The opportunity for holding the International was, of course, due to the beneficence of Andrew Carnegie and to a taste for and a sympathy with the cause of American art on the part of such friends and fellow citizens of Mr. Carnegie as John Caldwell, William N. Frew, Joseph R. Woodwell, A. Bryan Wall, and others. The names of the first three are precious memories in Pittsburgh's art world. The fourth, A. Bryan Wall, has completed twenty-six years of service as a member of the Fine Arts Committee of the Institute.

In 1890 on the occasion of the opening of the Carnegie Library of Allegheny a loan exhibition was held under the auspices of a committee of which Joseph R. Woodwell was the chairman and John W. Beatty the secretary. It was the first really significant exhibition in Western Pennsylvania and undoubtedly was the inspiration for the beginning of the International. It is important to note that this exhibition was confined to European works.

It was very natural after the success of the Allegheny exhibition that one should be held in connection with the opening of the Carnegie Institute of Pittsburgh, so in 1895 Mr. Carnegie invited the Art Society of Pittsburgh of which Mr. Beatty was the secretary to arrange a loan exhibition. There were three hundred and twenty-one works in it, most of which were lent by Pittsburghers. This exhibition was con-

"Eleanor, Jean and Anna," by George W. Bellows. Awarded Medal of the First Class, Twenty-first International Exhibition, 1922.

ceded by critics to be one of the strongest ever held in America. Mr. Carnegie was delighted and it was, undoubtedly, the success of this exhibition which led him to make provision for an art gallery in the Library Building which would make possible the holding of an annual exhibition of paintings. When the Fine Arts Committee was organized early in 1896, Mr. Beatty, who was a member of it, was selected as Director of Fine Arts, and was immediately sent abroad to endeavor "to interest both American and foreign artists in the first annual exhibition * * * as well as to impress on them the importance to themselves as well as to us of their being represented by examples of their works at all future exhibitions."

The First Exhibition opened on November 5, 1896 and comprised three hundred and twelve works, one hundred and seventy-three of which were contributed by European artists. The Fine Arts Committee acted as the Jury of Award and the Gold Medal was given to John Lavery, the Silver Medal to J. F. Raffaëlli, and the Bronze

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"Across the River," by W. Elmer Schofield. Awarded Medal of the First Class, Ninth International Exhibition, 1904. In the Carnegie Institute Collection.

to Cecilia Beaux. It is interesting to note that James MacNeill Whistler had two paintings in the exhibition, "The Fur Jacket" and "Sarasate." Let it be here recorded to the glory of Carnegie Institute and to those who were directing its affairs that the latter painting was purchased at the same meeting on November 30, 1896, at which the awards were made, thus becoming the first painting which Whistler sold to a public gallery in America.

Before the first exhibition was over plans were under way for the second. Some important changes in the method of conducting it were decided on. It was voted to have a Jury of Award of eleven members, the President of the Fine Arts Committee to be the Chairman, the other ten to be elected by artists contributing works. Two of the jurors were to be Europeans and eight Americans, with not more than three of the latter from any one city. John Caldwell remained as President of the Jury until his place was taken by Mr. Beatty in 1907. The Jury of eleven with the elective features was continued until the Twenty-first Exhibition in 1922 when it was reduced to a Jury of five, the Director of Fine Arts as President, and two European members and two American members, selected by the Fine Arts Committee. As a list of the members of the different juries is too long for publication here it will suffice to name the foreign artists who have visited America as the guests of Carnegie Institute: John

"The Girl Crocheting," by Edmund C. Tarbell. Awarded Medal of the First Class, Thirteenth International Exhibition at Carnegie Institute in 1909.

M. Swan, John Lavery, Fritz Thaulow, J. F. Raffaëlli, William Stott, Anders L. Zorn, Robert W. Allan, Edmond Aman-Jean, Alexander Roche, Charles Cottet, Alfred East, René Billotte, Emile Clause, George H. Breitner, Albert Neuhuys, Henri Eugène Le Sidaner, Maurice Greiffenhagen, Henry Caro-Delvaille, René Xavier Prinet, Julius Olsson, André Dauchez, George Clausen, William Nicholson, Lucien Simon and Laura Knight.

Mr. Beatty, in a paper read on the occasion of the dedication of the new Boston Museum building in 1909, very properly attributed two important results to the Carnegie Institute Jury System. He wrote: "As a result of these meetings, two things happened and these were perfectly manifest to

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"PORTRAIT OF THE ARTIST," by Sir William Orpen. In the Fourteenth International Exhibition in 1920. In the Carnegie Institute Collection.

a close observer. First, the foreign members of the Jury, seeing the strongest American works intermingled with many of the powerful pictures of Europe, were deeply impressed by the strength of the American representation, and they were not slow to express their appreciation and pleasure; second, the American members in the generous and spontaneous expression of appreciation on the part of foreign painters, found, through this source also, their own faith strengthened and confirmed. Thus through the medium of the men who have assembled as jurors in the past thirteen years, a just estimate of the strength of the American school found authoritative expres-

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'Miss Kitty," by James J. Shannon. Awarded Medal of the First Class in the Second International Exhibition, 1897. In the Carnegie Institute Collection.

sion, and this judgment subsequently, upon the return of the jurors to their homes, found voice in many lands."

Another innovation in preparation for the Second International was the appointment of Advisory Committees in London, Paris, Munich and later The Hague to be charged with the duty of accepting pictures for exhibition. Foreign Advisory Committees, with some slight modifications in their powers, were continued through the Twentieth International They are now in process of being reorganized and given new prerogatives to strengthen the European representation in future exhibitions.

The second International which opened on November 4, 1897, had two hundred and forty-three canvases, one hundred and forty-nine of which came from abroad. The Gold Medal of the First Class was awarded to James J. Shannon of London for his painting entitled "Miss Kitty", which was subsequently purchased for the permanent collection. Whistler was represented in this exhibition by a group of six paintings. Edwin Abbey appeared for the first time as did Segantini, Ménard, Carl Marr, and many others.

Six successive Internationals were held and then in 1902 it was decided that the seventh should take the form of another loan collection, "That our people be given an opportunity to review the broader field as it is represented by the paintings produced during a period of more than three hundred years to the end that their horizon may be widened and, perchance, their convictions strengthened." One hundred and fifty-five paintings were secured for this exhibition from public and private American collections. Seldom if ever in America was there assembled a finer or more broadly representative collection of paintings. It was a just cause of civic pride that sixty-one per cent of the works were contributed by private collectors of Pittsburgh and vicinity. One hundred and thirty-eight thousand people visited the exhibition, undoubtedly a record attendance for a city of four hundred thousand.

For the Eighth Annual Exhibition it was decided to depart in a measure from the plan pursued during the first six, and to limit invitations to contribute to American artists residing in America; and in conjunction with the paintings thus assembled, to present a collection of works, contributed as a collection, by members of the International Society of Sculptors, Painters and Gravers of London. Under this plan only American painters were eligible for honors and the Jury was made up of Americans. The Medal of the First Class under these arrangements was awarded to Frank W. Benson for his painting entitled "A Woman Reading."

The modifications in 1902 and 1903 of the plan of conducting the International are indications that the Institute was feeling keenly, as it always has, the administrative and financial strain accompanying it. The average cost of the early exhibitions was about Fifteen Thousand Dollars; the three last ones have each almost tripled this amount. Attempts have been made at various times to lighten the burdens, by having other institutions join in holding it, but these have never been successful. It is to the credit of Carnegie Institute that notwithstanding the burdens, the International has never been abandoned nor the standard lowered. This year seventy of the European paintings which were in the Twenty-first are on a tour of American cities. This may mark the beginning of coöperation with

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"Evening in a Studio," by Lucien Simon. Awarded Medal of the First Class, Tenth International Exhibition, 1905. In the Carnegie Institute Collection.

other institutions which will have eventually very beneficial results.

The Ninth International was conducted on the old plan. Seven hundred and sixty works were submitted for it of which three hundred and twenty-four were accepted. In order that there should be no interruption in the Internationals, temporary galleries were erected near the Institute while the main building was being enlarged. This was being done principally to afford sufficient space for the rapidly expanding Museum and to give the Department of Fine Arts adequate gallery space for the Internationals. The Ninth and Tenth Internationals were held in the temporary building. The exhibition for 1906 was abandoned owing to the pressure of work preparatory to the opening of the new building in April, 1907.

The new and spacious galleries of the greatly enlarged Carnegie Institute Building were inaugurated by the Eleventh International. It marked the high watermark of the Institute's efforts. There were five hundred and fifteen works contributed by three hundred and sixty-five artists. Three hundred and twenty-one of the paintings came from abroad. This exhibition was visited by over three hundred and forty-two thousand people in the nine weeks it was open. The first prize was awarded to Gaston La Touche for his painting, "The Bath."

For the Twelfth International a very delightful innovation, which was followed in most of the succeeding Internationals, was introduced. It was a "One Man Show." Twenty-two paintings by Winslow Homer were grouped in a gallery. This was an appropriate tribute to a great American artist who had been awarded the Chronological Medal in the First International for his painting entitled "The Wreck", which, by the way, was the first painting purchased for Carnegie Institute. The "One Man Gallery" for the Thirteenth was occupied by twenty-five canvases by Sir Alfred East. It was a delicate tribute to Pittsburgh that two of the paintings were of Pittsburgh scenes. This exhibition also contained an excellent group of seventeen paintings by the American landscape painter, Henry W. Ranger. First prize was very properly awarded to Edmund C. Tarbell, for his painting entitled "The Girl Crocheting." A number of notable paintings from this exhibition were purchased by the Fine Arts Committee. Among them were, "Portrait of Mrs. C." by William M. Chase, "Spring Morning" by Childe Hassam, "Judgment of Paris" by Emile René Ménard, "Munich Boy" by J. Frank Currier, and "November Hills" by Bruce Crane.

The various International Exhibitions have afforded the Institute an excellent opportunity to cull from out of them a very evenly balanced permanent collection, probably the best in the United States for its size.

For the One Man Exhibition in the Fourteenth, Childe Hassam contributed thirty-eight of his works. In this exhibition William Orpen took first prize with his painting entitled "A Portrait of the Artist," which is now one of the valued possessions of the Institute.

In the next four exhibitions the "One Man Gallery" was held successively by J. Alden Weir, John Lavery, Lucien Simon and Paul Dougherty. In each of these exhibitions the European representation was notably strong, but it remained for the Eighteenth to take on the most international aspect. Out of

the total of three hundred and forty-four works, one hundred and seventy-nine were foreign, representing thirteen European countries. All of the European paintings from this exhibition were on the high sea when the war broke out in August, 1914.

In view of the art exhibition at San Francisco, as a part of the Panama-Pacific Exposition, the Fine Arts Committee decided to omit an International in 1915. It was not resumed because of subsequent events until 1920.

The Nineteenth International was a memorable one in many ways. Due in a large measure to the enthusiasm and energy of Robert Harshe, the then Assistant Director of Fine Arts, who went to Europe to renew the interest of European contributors, an excellent representation was secured. Out of a total of three hundred and seventy-two works, one hundred and eighty-seven came from abroad from twelve nations. Ménard contributed twenty-two canvases for a very notable "One Man Show." A large number of European canvases in the exhibit were sold, due in a measure to the low rate of European exchange. From this Exhibition the Institute added to its permanent collection: "Woman in Blue" by Olga de Boznanska, "Rock Shore and Sand Beach" by Paul Dougherty, "Springtime on the Desert, Arizona" by Albert L. Groll, "The Rape of Europa" by Emile René Ménard, "Water Lilies Beneath the Bridge" by Claude Monet, "The Beach, Polder" by James W. Morrice, "Golden Afternoon" by Julius Olsson, and "Venetian Interior" by John S. Sargent. First prize in the Exhibition was awarded to Abbott Thayer for his painting, "Young Woman in Olive Plush."

In the Twentieth, Henri Le Sidaner had a group of paintings. Neither this one nor the Twenty-first were so broadly representative of European art as the Nineteenth. In the Twenty-first each artist was limited to one work. There was no "One Man Show" and the paintings were hung by national groups.

It is a difficult and very problematic task to estimate the result of the Carnegie Institute Internationals. The value of such art exhibitions—broad in scope and catholic in taste—is readily admitted. They have offered a splendid educational vista and an opportunity for comparative standards. The Internationals through an evenly marked out and tenaciously adhered to course of twenty-six years must have left some very definite marks on American Art.

For one thing the Internationals have established reciprocal relations between American and European painters from which only beneficient results can have accrued. When the International was established it is not too much to say that American Art was not adequately estimated or fairly appreciated by the public in America. The impression prevailed, especially among purchasers of paintings, that the works of European artists were, by virtue of the superior educational advantages enjoyed by their authors, more important artistically than those produced by American painters. The placing, side by side, year after year, of the best current American and European paintings has stimulated American production so that now instead of merely aping European art it has achieved certain qualities of its own, which many hold to be superior to those found in Europe.

The exhibitions have contained, with few exceptions, the names of the great contemporaneous painters. The first

catalogue in 1896 contained the names, for instance, of Thayer, Aman-Jean, Twachtman and Monet, Weir and Orchardson, Duveneck and Degas, La Farge and Puvis de Chavannes, Whistler and Besnard. The latest contained the names of Hassam, Ménard, Dewing, Orpen, Tarbell, Le Sidaner, Zuloaga, John, Dauchez, Melchers, Brush, Valentine de Zubiaurre, Brangwyn, Henri Martin, Beaux, Woodbury and Hornel.

Of the pioneering work of Carnegie Institute in introducing to America outstanding figures in European Art, Christian Brinton wrote, "It must never be forgotten that Pittsburgh enjoys the distinction of having introduced Segantini to America, that it was the first organization to extend welcome to Cottet, Blanche, Ménard, Simon and many others of the Société Nouvelle, that the Englishmen Shannon and Nicholson, the Irishmen Lavery and Orpen, the Glasgow School, and the modern Germans, Scandinavians, and Russians each found their first regular transatlantic representation on the same walls."

The exhibitions, while they have always disclosed the various art manifestations of the modern world, have at times given but a faint hint of some of the more pronounced. This has raised the delicate question as to whether Carnegie Institute led or followed, whether it set standards or accepted the dicta of conventional taste and approval. This debatable question is of secondary importance when it is recalled that the great service of Carnegie Institute through its International has been to establish a high standard in which, according to Royal Cortissoz, masterful workmanship was the dominant motive. To give the public annually a fair idea of the state of painting was the task which the Institute set before itself in 1896. An excellent standard, marked by catholicity of choice and sane judgment of what constituted technique, was set then and it has always been maintained.

When the history of American Art is written, whatever emphasis is placed on the importance of the early painters such as West, Sully and Stuart; whatever influences are attached to the art displays in the various expositions—Centennial, World's Fair, Pan-American, Louisiana Purchase and the Panama-Pacific; whatever place is assigned to the growth of interest of art in Chicago, and to the wealth of the magnificent collections of the Metropolitan Museum, no second place will be assigned to the influence of the Carnegie Institute International on American Art.

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"Awaiting the Absent," by Charles Stanley Reinhart. In the Carnegie Institute Collection.

PITTSBURGH ARTISTS, PAST AND PRESENT

By PENELOPE REDD

PITTSBURGH has, perhaps, the most elusive art history of any city in America. As a village dominating an important highway—the Ohio River—it was inevitably visited and noted by early travelers. Several of these travelers have recorded its infancy of wooded hills and simple shelters.

The earliest view of Pittsburgh known is that made by Lewis Brandt in 1790. Brandt selected the view from the south side of the Monongahela River, taking that part of the city near the Point with Grant's Hill in the background. One local collection includes a painting of Fort Duquesne by Russell Smith—painted expressly for Godey's Magazine; another early one of Pittsburgh and Allegheny by B. F. Smith, Jr., was engraved for The Ladies' Repository.

Chester Harding, a recently re-discovered painter of the early nineteenth century, began his career as a portrait painter in Pittsburgh. Among his portraits is one painted in 1833 of the Honorable Harmar Denny, a distinguished lawyer of Pittsburgh and high minded gentleman of the old school. Mr. Harding remained in Pittsburgh for a while and then traveled south through the wilderness to Kentucky. Strange as it may seem, this itinerant painter and pioneer went to England where he became the mode and painted many in England's polite world. He was the forerunner and symbol of the quality of high adventure that has characterized art in Pittsburgh.

Pittsburgh, in common with other of the older cities in America, was aesthetically innocent. Boston, as always the conscious leader of culture, had a more or less Anglican tradition of portrait painting and then, as now, exchanged painters with Philadelphia. Pittsburgh, in turn, received the attention of Philadelphia painters. They probably wanted to have a look at the provinces and at the same time turn an honest dollar. The honest dollars usually poured in from portraits since art was closely allied to the immediate demand in those early days.

One contemporary of his writes that Sully came out to Pittsburgh to paint. Certain it is that there are a dozen or more family portraits in the city done by Sully. Among others, Sully painted the portraits of Mr. and Mrs. John H. Schoenberger. Mr. Schoenberger was one of the first iron master in the city and made a collection of paintings which was a stimulus to the early Pittsburgh painters.

J. C. Darley, one of the leading painters of Pittsburgh, originally came from Philadelphia and was related to Sully by marriage. Darley shared honors with J. R. Lambdin, who painted the municipal celebrities of the period—prominent merchants and jurors. Lambdin painted the portrait of Mrs. William Croghan, the daughter of General James O'Hara, and the mother of Mrs. Mary Schenley, who donated most of the land for Schenley Park to Pittsburgh. Lambdin also made a portrait of Benjamin Darlington which is now owned by his granddaughter, Mary O'Hara Darlington, who has been a student of painting herself. These men continued to be the popular painters through Civil War times and were more or less succeeded in their fields by A. L. Dalbey.

"Sand Dunes," by Joseph R. Woodwell. In the Carnegie Institute Collection.

During the Civil War the good women of Pittsburgh extended the hospitality of the city to the large number of soldiers that passed through, to or from the battlefields. Money was needed to carry on this work and in June 1864, the Western Pennsylvania Sanitary Fair was opened. As a part of this Fair, the first formally organized art exhibition in this district was held in the council chamber of City Hall in the old City of Allegheny.

One of the influences that must have been important in stirring art interest in the town was the opening of J. J. Gillespie's art gallery in 1832. Mr. Gillespie went abroad for paintings and it is said he was the first person to bring original foreign paintings west of the Allegheny mountains. Indeed, the Gillespie gallery was the rendezvous for all the artists. An enthusiastic group of young men met there each day at noon, Alfred S. Wall, Joseph R. Woodwell, David Blythe, George Hetzel, Charles Linford, Jaspar Lawman, and others. Pittsburgh like other American cities now included some landscape men among its painters. Alfred S. Wall and Joseph R. Woodwell had great influence on art and art interest in Pittsburgh over a long period of years and ended their days of missionary effort as members of the original Board of Trustees of Carnegie Institute, when the various volunteer interests were strengthened by the organization of an official art body.

In tracing back older days in Pittsburgh, it is discouraging to find how much has been forgotten. For example, I could find no accurate data on David

"The Studio Garden," by Johanna K. W. Hailman.

Blythe. Fortunately, his paintings are about in the homes of older families. He appears to have been a painter more or less Hogarthian in choice of subject, painting an amusing type of *genre*, good in color and drawing. Trevor McClurg did a locally famous painting called "The Pioneer's Defense." Clarence M. John's forte was transferring to canvas the animal kingdom, his horses being especially fine. Jaspar Lawman, I am told, painted portraits including an early one of Andrew Carnegie. Charles Linford, it is said, was particularly interested in painting beech trees and was distinguished in the city's art life as a person of rare charm.

Alfred S. Wall and Joseph R. Woodwell, however, were the dominant members of the group and were constructive in their effort to help their fellow painters. Mr. Woodwell spent seven years in study abroad and was closely associated with the impressionist group, particularly Pissarro. He knew these men when their works were hardly known beyond Paris. In Mr. Woodwell, Pittsburgh again had direct contact, as in earlier times, with the more intense art life of Europe. Although Mr. Woodwell engaged in business upon his return to Pittsburgh, he found some time to paint every day.

Mr. A. S. Wall's experience was quite different. His family came from Oxford, England, and settled in Mt. Pleasant, where he was born in 1825. Mr. Wall early determined to be a painter and came to Pittsburgh to achieve his ambition. One is told by

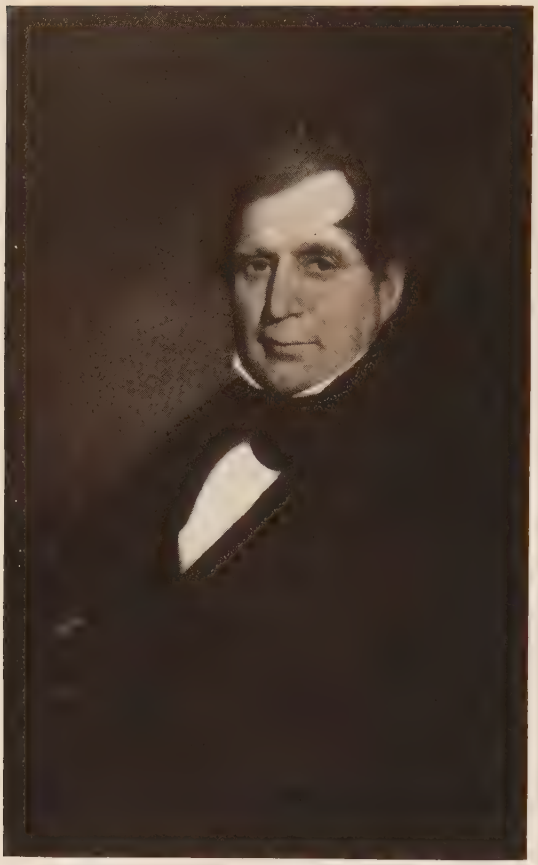
"LANDSCAPE," by Alfred S. Wall. In the Carnegie Institute Collection.

"Homestead, Pennsylvania," by A. H. Gorson.

old residents that Mr. Wall was a man of deep thought who stimulated those about him. He had never been abroad and yet he found out, quite alone, a method of painting so akin in quality to that of the Barbizon men that John Alexander deemed him worthy of their company. Mr. Wall and Mr. Woodwell formed a camaraderie about art in Pittsburgh in the 70's and 80's that has since been lost in the rapid growth of the city. They made up sketching parties each year and went to Scalp Level, a village in the Allegheny mountains.

It must be noted that both Mr. Woodwell and Mr. Wall had children who are devoted to painting. While Mr. Wall's daughter, Miss Bessie Wall, is exceptionally gifted, she paints only for her own enjoyment. His son, A. Bryan Wall, however, has been absorbed in painting all his life and met with an early and continued success. He is represented in many private collections in Pittsburgh and in Philadelphia. Mr. Wall has been a member of the Fine Arts Committee of the Carnegie Institute for twenty-six years.

Mrs. Johanna K. W. Hailman, the daughter of Joseph R. Woodwell, has shown a true desire and love for painting. She has painted since childhood. She had superior advantages in her association with her father and she made good use of her opportunity. She has essayed marines, landscapes, garden and flower paintings and portraits which have been exhibited extensively.



Portrait of Benjamin Darlington, by J. R. Lambdin.

She has achieved prestige on her own merits as one of America's best women painters.

A number of the generation younger than Mr. Wall and Mr. Woodwell went to Germany to study. Martin Leisser and A. M. Foerster were of this group. Mr. Leisser was in the same class as Frank Duveneck under Professor Dietz in Munich. Another Pittsburgh man to study in Germany, which was then considered the only place to study, was John W. Beatty. Mr. Beatty was associated on his return with the Pittsburgh School of Design. He entered the exhibition field through securing the local management of the Verestchagin exhibition and ultimately was selected Director of the Department of Fine Arts on the founding of the Carnegie Institute. From that time on, Mr. Beatty devoted the major part of his time to his executive duties.

John W. Alexander was likewise among the first from Pittsburgh to go abroad to study. The position he attained in American art is too well known to bear repetition. The principal decorations he made are in the Carnegie Institute and symbolize in a lyric way the power and wealth of the city and the consequent benefits to its citizens. Three of Mr. Alexander's paintings are at present in the collection of the Carnegie Institute while various private collections in the city have examples of his work.

Charles Stanley Reinhart, with whom John Alexander was associated as a student in Germany and later on the staff of Harper's, also became successful as an artist. Although Mr. Reinhart is represented in the Carnegie Institute collection by a painting, "Awaiting the Absent," he remained primarily an illustrator and was one of the men to build up a popular school of American illustration.

Pittsburgh had many painters, who like its first resident portrait painter, Chester Harding, became successful abroad and did not return to the city. Mary Cassatt, who is designated the "best" woman painter, was born in Pittsburgh. It may seem strange that one so closely associated with the great names of modern art should have come from Pittsburgh.

Another local woman who left the city and accomplished her work elsewhere was Mary Rogers. Miss Rogers' work was not known during her life beyond a limited circle. She studied abroad where she became interested in the work of the modernists when they

were beginning to make group exhibitions. She worked against desperate odds and within the last two years of her life accomplished a remarkable amount of work. The public was not aware that she had lived until her memorial exhibition at the 1921 exhibition of the Society of Independent Artists in New York, six months after her death. Her ability as a water color painter has been favorably commented upon by critics and since that time her work has received official recognition throughout the country.

In Henry Ossawa Tanner, Pittsburgh gave a painter alien to the age. Mr. Tanner is the son of Benjamin Tanner, an African Methodist Episcopal bishop. I am told by one of his kin that the mystic quality in his paintings is characteristic of the man. He has succeeded in depicting biblical events in a truly aesthetic manner. While he has lived for years in Paris, Pittsburghers have an opportunity to see one or more of his works each year at the International. He is represented in the permanent collection at Carnegie Institute, at the Art Institute of Chicago, in the Luxembourg, and in many other public galleries. Another painter imbued with a religious feeling in painting, Augustus V. Tack, was also born in Pittsburgh. His paintings are of the spirit rather than of the history of religion. They suggest the poignant elements of the great Christian drama without the commonplace irrelevancies that frequently disturb one in the old masters.

Will H. Singer, who now lives in Norway, where he finds subjects to his liking, is a member of a family prominent in the development of the city. William S. Coffin, who is also devoted to the lyric landscape in art, came from Pittsburgh. He frequently paints in

"Young Women Picking Fruit," by Mary Cassatt. In the Carnegie Institute Collection.

the Allegheny mountains not far from the village of Scalp Level. Charles Rosen is also a landscape painter who has sought more pastoral surroundings than Pittsburgh and is now painting in the Delaware River valley group which represents American landscape painting at its best.

Ernest Blumenschein left Pittsburgh about the time it began to grow from a leisurely town to a city crowded with the nations. He was not interested in the quiet beauty of the Pennsylvania landscape but traveled hither and yon, finally settling in Taos, New Mexico, where he found Indians untouched by civilization. He was one of the first to see the American Indian as other than

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"SUNLIGHT," by John W. Alexander. Awarded Medal of the First Class Fifteenth International Exhibition, 1911.

an ethnological or historical specimen and to make him decorative and symbolical.

Hugh Breckenridge, originally from Pittsburgh, is now in the ranks of the more modern painters and spends his time in the East. Leopold Seyffert is also from Pittsburgh and has painted a number of portraits here. Howard Hildebrandt is another Pittsburgher who frequently returns to the city. He has made a gallery of distinguished citizens in this district. Raymond Holland, who had unusual advantages for study and travel, is now resident in Darien, Connecticut. He has a delightful form of decorative narrative that goes well with the tradition of Alexander and Singer.

The seeming diffidence towards art in Pittsburgh, with emphasis on practical affairs, was doubtless responsible for so many gifted men seeking opportunities elsewhere. Yet the greatest good came to the city ultimately through the intense concentration upon practical affairs by a man of vision, Andrew Carnegie. Pittsburgh was not the only city in America sending its young painters to other places, but Pittsburgh is now the only city in America where young painters can see what their contemporaries are doing the world over.

The special activities, which are recorded elsewhere in this issue, fostered various groups of painters. The group active in the 70's and 80's participated in the soirées of the Art Society. The School of Design and the Art Student's League developed talent and also gave a basis for art appreciation to many women prominent in the city. The Associated Artists made a success of their first exhibition chiefly through the efforts of Eugene Connelly, who secured the lobby of the Grand Theater as an exhibition gallery. Among the men known in this group may be mentioned F. G. Ackerson, James Bonar, William Boyd, Jr., Will Hyett, Ferdinand Kaufmann, and Charles Patterson. Christ Walter, the present president, has a poetic metier that has won him many patrons. The One Hundred Friends of Pittsburgh Art was founded for the dual purpose of showing the local painters that the people were interested in art and also to educate the future citizens to the fact that there are artists living and working just around the corners from their own homes.

The College of Fine Arts of the Carnegie Institute of Technology has already proven that painters can be

trained in Pittsburgh. Among the group of unusually able young painters are Clifford A. Bayard, George Heppenstall, F. W. Metzkes, Vincent Nesbert, Leo P. Haso, W. A. Readio, Samuel Rosenberg, and Raymond Simboli. Malcolm Parcell has achieved national success with his portrait subjects, genre and mythological decorations. The school has also brought many artists to the city for its faculty, the late Arthur W. Sparks and the late August Zeller being in the first group of teachers. George Sotter trained many of the rising young painters from the Carnegie School. Charles J. Taylor, Edmund Ashe, Frank Bicknell, Joseph Bailey Ellis, Henry S. Hubbell, Walter Klar, Norwood MacGilvary, Berthold Nebel, and Eugene Savage have all been important as artists and as teachers. All of these men have contributed to building up an art life in the city that the general public is only coming to realize.

Fred Demmler, the most promising painter of his generation in Pittsburgh, was wounded when his company went over the top in the St. Mihiel Sector on October 31, 1918, and died two days later at Staden, Belgium. He studied painting in Boston and first exhibited at the Carnegie Institute International in 1914. The war made his plan of study in Europe impossible and after a short time in England, he returned to Pittsburgh. Fred Demmler was indomitable in his determination to be a painter. He painted constantly and his portraits foretell the power that was within him. His keen sense of justice, his unerring judgment and his ardent struggle to conquer the technic of painting that he might make a direct remark upon his positive ideals, are recorded in his work. His integrity, his staunch adherence to his purpose, his talent, and his death place him in the company of Alan Seeger and of Lemordant, the tragic hero of France.

The women should be considered since it is not probable that they will enter into the special activities groups discussed elsewhere in this issue. While Mary Cassatt, Johanna K. W. Hailman and Mary Rogers are pre-eminent as the women painters native to Pittsburgh, who are known everywhere, there are a group of women artists who are serious workers and not casual dabblers. Mrs. H. R. Scully, one of the women who studied at the School of Design, has painted continuously, notwithstanding her many family and social obligations. Miss Minnie Sellers also paints quietly but persistently. She has studied wild flowers and makes intimate and charming sketches of them.

Alice Laughlin, who has not yet presented a special exhibition in the city, although she has exhibited single canvases here and in the annuals in the East, is one of the painters in town worth observing. She has ideas and is fast acquiring the necessary skill to present them in an original but disciplined manner.

Mary McAuley Carroll is another painter of originality. She has exhibited both here and abroad and through her work suggests the confusion of our time in a piquant idiom. Elizabeth Robb, whose work has a quality of vivid imagery, Elizabeth Rothwell, and Florence Newcomer are engaged in decorative studies. Mabel K. Day and Frances Orr are the outstanding figures among the local women in landscape work. They both achieve the positive and the real. Verona Kiralfy is a portrait and still life painter with a brilliant style. Anna Belle Craig is best known for her illustrations, which have appeared in books and

magazines. Lillian Henius has been active in organizing the Cordova Club to encourage the women painters to work steadily.

Before completing the paragraphs upon the women artists, mention should be made of two sculptors, Gretchen Vandervoort Schoonmaker and Geneva Mercer. Miss Schoonmaker has done some fascinating garden figures while Miss Mercer has shown a versatility that promises to place her in the forefront of women sculptors if she progresses consistently within the next ten years.

There have been women in other fields of artistic endeavor in Pittsburgh who have been unusual in the quality of work achieved. Miss Euphemia Bakewell was a bookbinder trained under the finest modern masters. She was fortunate in finding in Mrs. Roy A. Hunt a pupil who eagerly applied herself to the difficult apprenticeship of bookbinding as a fine art.

In conclusion, one inevitably comes back to Pittsburgh itself as a subject for artists. Many men have been enthusiastic about the city and its environs. Sir Alfred East, who was in Pittsburgh several times, admired the landscape and painted Pittsburgh scenes. Fritz Thaulow, the Norwegian, also painted here. Hayley Lever has recently painted studies of the rivers and mills. Other men have done more informal notes on Pittsburgh, such as Rudolph Ruzicka in his woodcuts. Colin Campbell Cooper made drawings here, notably one dramatic sketch from the South Side showing the Bluff. Thomas Wood Stevens has made etchings of many Pittsburgh subjects. Charles J. Taylor has penciled comments and Edmund Ashe is unceasing in his search for every conceivable aspect of the city. The city as Mr. Ashe has found it is a series of abstract designs of contrasts both brutal and lyric. Joseph Pennell gave his time in Pittsburgh to the industrial appearance of the city and formalized its smoke stacks into altar fires. Thornton Oakley, a Pittsburgher, and Joseph Stella have also played about the labor theme. A. H. Gorson, who lived in Pittsburgh for many years, made innumerable studies of the city's mills and rivers. Mr. Gorson has painted many nocturnes showing the drama of night in Pittsburgh.

The painter of Pittsburgh, however, has not yet come. Whether or not there will ever be one patient enough and gifted enough to comprehend the character of the city in its bewildering diversity and to express what he finds in the difficult medium of paint, is yet to be seen. Once in an exhibition held by the Associated Artists of Pittsburgh, there was a painting by a young man named William Wolfson that suggested the possibilities in Pittsburgh as a subject for a painter. It is, nevertheless, as elusive as its own art history.

SOME COLLECTIONS OF PAINTINGS IN PITTSBURGH

By Will J. Hyett

EARLY in its history, Pittsburgh attracted the attention of celebrated painters of the day. This is attested by the large number of portraits of Pittsburghers by eminent artists which the Art Society was able to present at an exhibition in the Carnegie Institute in 1900.

Not only did the artists come to Pittsburgh to paint portraits but they were attracted to the city by its great natural beauty. This also accounts in a measure for the fact that many of the early local artists were landscape painters. In this connection, the names of Alfred S. Wall, George Hetzel, Jasper Lawman, and Joseph R. Woodwell come to mind at once. The natural picturesqueness of the district has long since vanished but it still holds artists spellbound. "Nothing like it exists in the world," exclaimed Raffaëlli on his visit to Pittsburgh in 1899 and his remark was echoed by Lucien Simon when he came in 1922.

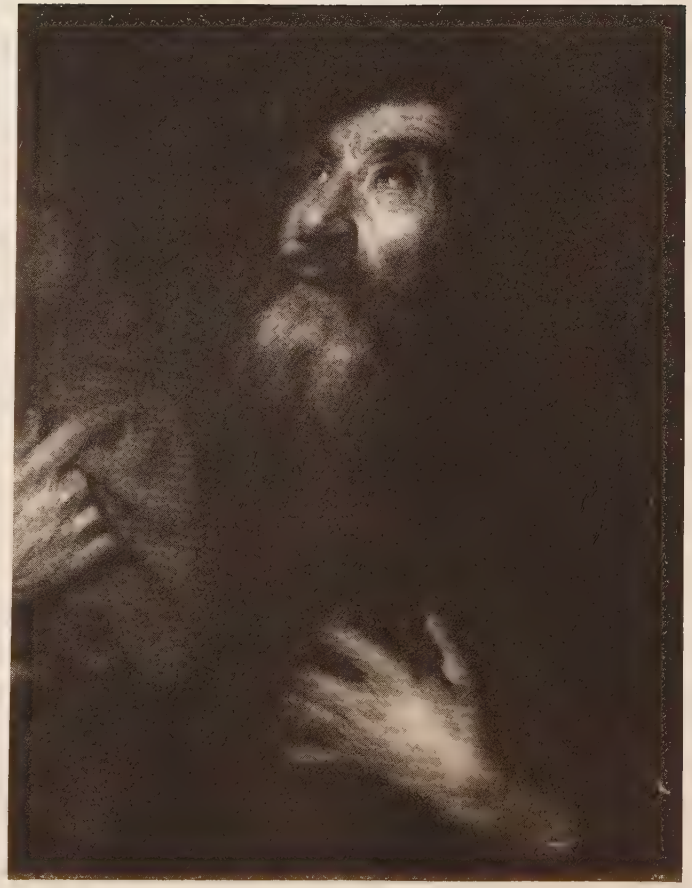
One of the earliest artists in Pittsburgh was J. R. Lambdin, a portrait painter of distinction. He was probably the city's first collector for it is recorded that he opened a gallery of paintings at Fourth and Market Streets in 1828.

The three early collections of paintings which seem to have had considerable merit for their time were those of Thompson Bell, B. Wolff, and John H. Schoenberger. The latter gentleman, who was a prominent iron manufacturer, lived in a delightful old house on Penn Avenue now occupied by the Pittsburgh Club. The gallery in it was occasionally thrown open to friends of his family and to art students.

With the rapid growth of the city there came a growth in the appreciation of art which very naturally resulted in an increase in the collections of paintings. This was due in no small measure to the spirit of fellowship which existed between the rising leaders of industry in the community and the local artists. For years the young men, who afterwards became the great industrialists, met in the small gallery of J. J. Gillespie, which was lighted by four gas jets, to view the works of local artists, several of whom have stood the test of time. Several well-known collections of paintings had their beginnings in these meetings.

The catalogues of the General Loan exhibition in 1879 organized to aid the old Pittsburgh Library, of the exhibition held at the opening of the Carnegie Library in Allegheny in 1890, and of the Carnegie Library of Pittsburgh in 1895, give evidence of a good number of collections in the city. In these catalogues one will find the beginnings of Henry Clay Frick's great collection and paintings indicative of the collections of John Caldwell, Henry Kirke Porter, D. T. Watson, Charles Lockhart, J. J. Vandergrift, J. M. Schoonmaker, William Nimick Frew, Charles Donnelly, E. M. O'Neill, William Thaw, Herbert DuPuy, and many others.

The first important collection in the city was that of the late John Caldwell. Mr. Caldwell was a man of fine artistic taste and was the first Chairman of the Fine Arts Committee of the Carnegie



"Saint Andrew," by Peter Paul Rubens. In the A. M. Byers Collection. Photographed by courtesy of the A. M. Byers Estate.

"Danse des Nymphes," by Jean Baptiste Camille Corot. In the A. M. Byers Collection. Photographed by courtesy of the A. M. Byers Estate.

"Contessa Lercari," by Sir Anthony Van Dyck. In the R. B. Mellon Collection.

"The Winding Road," by Theodore Auguste Rousseau. In the R. B. Mellon Collection.

Institute. In addition to paintings, his collection of Whistler etchings and lithographs are considered very excellent.

Contemporary with the Caldwell, comes the A. M. Byers, which is conceded to be by far the most important in Pittsburgh at the present time. It contains splendid examples of the English, French, Barbizon, Spanish, and early Dutch schools. Most of the important paintings in it were shown at the Carnegie Institute Loan Exhibition in 1907. In fact, the Byers paintings formed the basis of that splendid exhibition which was a review of the works of master painters of the last three hundred years.

Probably the next best known collection is that of Richard Beatty Mellon. A few years ago Mr. Mellon acquired many of the works in the David T. Watson collection. Mr. Watson was an eminent lawyer of Pittsburgh, who directed that after his death his paintings should be sold and the proceeds devoted, with other money from his estate, to the establishment and maintenance of a home for crippled children. This collection has been known to art lovers for many years as one representing an exceptionally high standard and including works from the time of Van Dyke and Murillo down to our own time. Constable, Moreland, Reynolds, Gainsborough, Romney, Decamps, Courbet, Corot, Rousseau, Diaz, Tryon, Monet, and many other artists equally famous are included in the list of those represented. Pittsburgh was

"PASTORELLA," by Charles Sims. In the W. S. Stimmel Collection.

very fortunate in being able to retain this collection. This, however, was not true of the splendid Alexander Peacock collection, which was sold last year in New York City. It was particularly known for its paintings by distinguished contemporary artists.

Mr. Andrew W. Mellon, Secretary of the United States Treasury, and a brother of Richard Beatty Mellon, has been assembling a very notable group of paintings. These are at present in his Washington home. Another Pittsburgh collection at present in Washington is that of Mrs. Henry Kirke Porter and her daughter, Miss Annie May Hegeman. In it are a number of particularly fine paintings by John Alexander and William M. Chase, together with examples of the modern French and Spanish schools.

Mrs. J. Willis Dalzell is the possessor of one of the finest collections in the city. It contains some splendid English portraits by Romney and Hoppner, "Lady Dearing" by Francis Cotes, which is probably the most important canvas in the United States by this artist, and examples of the work of Israels, Schreyer and Ziem. Mr. William J. Black owns a large group of paintings, most of which were done by contemporary artists. In the J. B. Finley collection, one will find such names as Diaz, Jacque, Cazin, Corot, Bonheur, and Mauve. The J. B. Laughlin group contains several modern Dutch paintings, a Ziem, a Wyant,

"The Beggar Boy," by Bartolomé Esteban Murillo. In the R. B. Mellon Collection.

a Murphy, and an important portrait of Mrs. Hunter by Angelica Kaufmann. John Moorhead, Jr., has a large collection, and F. F. Nicola possesses some excellent examples of the Barbizon, Dutch, and English schools. Mrs. B. F. Jones, Jr., is the owner of three English portraits by Northcote and fine examples of the works of Sir Thomas Lawrence, Sir William Beechey, Harpignies, Van Marcke, Inness, Cazin, Redfield, and Lawson. Mrs. Henry R. Rea owns two Romney portraits of children, and Mr. Julian Kennedy has the famous English canvas, "The Storm," by Linnell. In the John Bindley collection are important canvases by Jacque, Cazin, Henner, Wyant, Harpignies and Lhermitte. Willis McCook and Emil Winter both possess collections to which they are adding some very notable works. The same is true of John L. Porter, who is particularly interested in contemporary paintings. William Flinn owns a number of important paintings and Herbert DuPuy, a member of the Fine Arts Committee at Carnegie Institute, who owns a collection of early English miniatures and a large number of rare art objects, is the possessor of a number of paintings and a splendid group of drawings by Old Masters. In the summer of 1908 Pittsburghers were given an opportunity at Carnegie Institute to see about forty paintings from the Charles Donnelly collection. It contains examples of the works of such artists as Cazin, Corot, Daubigny, Hoppner, Isabey, Janssens, Lawrence, Meissonier, Jacque, and Monticelli.

Undoubtedly the greatest impetus given to art in Pittsburgh was the opening of the Carnegie Institute in 1896. Many of the collections begun since that time have a very distinct relation to the International Exhibitions even as the Institute's own collection has. This is especially true of the splendid group of paintings owned by William S. Stimmel, some of the finest works in it being purchased from the various Internationals. Mr. Stimmel owns "The Bath" by Gaston La Touche, awarded Medal of the First Class in the Eleventh International, "Pastorella" by Charles Sims, awarded Medal of the First Class in the Sixteenth International, "The Village in Winter" by Edward W. Redfield, awarded Medal of the First Class in the Eighteenth International, "The String Quartette" by Richard Jack, awarded Medal of the Second Class in the Eighteenth International, and a notable group of paintings by the well-known Russian artist, Nicolas Fechin. Sixty-

five of Mr. Stimmel's paintings were shown at the Carnegie Institute in the Founder's Day Exhibition in 1918. They aroused most favorable comment and deservedly so, for they show rare taste and a sense of fine discrimination on the part of their owner.

The Pittsburgh Athletic Club has a small but excellent collection, most of which were purchased from the Internationals. Other prominent collectors who are particularly interested in American art and who have important works purchased from Carnegie Institute Internationals and elsewhere are Joel W. Burdick, George Taber, Walter May, Edward H. Bindley, Peter Glick, H. Walton Mitchell, B. D. Saklatwalla, Charles D. Armstrong, John C. Wellington, George Matheson, Jr., Percival J. Eaton, and others.

An ever increasing number of people of Pittsburgh, some of even moderate means, are purchasing a few good paintings by contemporary artists. This is a very healthful sign and gives tangible evidence of the growing appreciation of art in the City of Iron and Steel.

"Mrs. Sara Foster," by Northcote. Owned by Mrs. B. F. Jones, Jr.

THE ASSOCIATED ARTISTS OF PITTSBURGH

By Christ Walter

President of the Associated Artists of Pittsburgh

THE Associated Artists of Pittsburgh had a very interesting beginning. It is the old, old story of "Tall oaks from little acorns grow."

In 1910, Harry Davis, an enterprising and civic minded theater owner of Pittsburgh, feeling that there was considerable artistic talent in the community struggling for recognition, invited all artists in the city to send their works to the Grand Theater for an exhibition. The result was amazing. The walls of the lobby of the theatre and other available space was utilized for an impromptu exhibition of all kinds of paintings, good, bad, and indifferent, by local artists.

At the close of this exhibition, which was a great success in a number of ways, Eugene Le Moyne Connelly, who was associated with Mr. Davis, suggested that the contributors to the exhibition organize. This was done and Mr. Horatio S. Stevenson was elected President, Mr. Ferdinand Kaufmann, Vice President, and Eugene Le

Moyne Connelly, Secretary. Mr. Connelly drew up the constitution and by-laws, which are still in force.

The Associated Artists of Pittsburgh owes a great debt of gratitude to Harry Davis and to Eugene Connelly for the beginning of the organization. During the second year of its existance, it was fortunate in securing for its president, James G. Bonar. Through his rare ability to mollify the temperamental differences which are usually found in an organization of artists, he succeeded in guiding the Association through a difficult period.

The works for the first few exhibitions were selected by juries of local artists. This system was soon found to have many disadvantages and gave way to a jury composed of three local artists and three outside artists. Some doubt was expressed as to the advisability of having outsiders select paintings for the local exhibitions but after the first trial, the new jury system was found to have great merits. It is true that it did disturb the affairs of the young organization but it only disturbed those things which were in the way of progress. The artists who were supposed to receive the prizes did not. The jury selected the works of real merit. This change gave the organization a position of stability and importance in the community.

This year for the Thirteenth Annual Exhibition, another innovation in the jury system, was tried. The organization felt strong enough to leave the selection of paintings entirely in the hands of a jury made up of artists from points outside of Pittsburgh. This jury was selected by the active members of the organization.

The first exhibition, as has been explained, was held in the Grand Theater. Since that time they have been held in the Carnegie Institute at the invitation of the Fine Arts Committee.

In 1911, the Association provided for three honors to be awarded for oil paintings regardless of subject. In 1919, the Art Society of Pittsburgh made provisions for an annual award of One Hundred Dollars for the most meritorious exhibit. In 1921, a friend of Pittsburgh art gave Five Hundred Dollars to be divided into three prizes, Two Hundred Dollars for the best landscape in oil, Two Hundred Dollars for the best figure subject in oil, and One Hundred Dollars for the best water colour. The Alumnae Prize of the Pittsburgh School of Design for Women of Twenty-five Dollars for the best painting by a woman, was established in 1920. A prize of Twenty-five Dollars in memory of Camilla Robb Russell for the best water colour, was established in 1921. The "One Hundred Friends of Pittsburgh Art," an organization whose activities are described in another article in this number, purchase works to the amount of One Thousand Dollars from each annual exhibition for presentation to the public schools. This has been a source of great encouragement to the Associated Artists and has done much to strengthen the exhibitions.

The Association has two purposes. In the first place it means to foster and to encourage any real artistic talent that is to be found in the community and in the second place, it strives to interest as many people as possible in art. To accomplish this latter, it makes its exhibitions as popular as is consistent with what is best in art. The Association has "fought the good fight" for some twelve years and has achieved a place of honor for itself in Pittsburgh. It has done its share in cultivating a field in which art can thrive and now confidently looks forward to the harvests that are to come.

Detail—City Arms—heroic bas-relief of façade of City-County Building, Pittsburgh, Pa. Charles Keck, Sculptor.

CIVIC ART IN PITTSBURGH

By GEORGE M. P. BAIRD

Executive Secretary, Pittsburgh Art Commission

THE creation of a beautiful city is the most difficult project in the realm of art. Even in those rare instances when it is possible to begin *de novo*, a medley of competitive interests renders the enterprise a vexing one: and when—as is usually the case—the established ugliness and civic inertia of an old city must be combatted, the assay is very hard and the rate of progress very slow indeed. In neither case is it possible to attack and solve the problem radically in accordance with purely aesthetic standards. Actual conditions—physical, economic, and social—, the claims of public utility and convenience, the vested interests and ambitions of individuals and of groups, the στασις of habit, sentiment and tradition, and the ever-present perplexities of municipal finance, are factors in the problem which will not suffer themselves to be neglected. Civic art is never the simple and complete expression of a single aesthetic ideal: at best it is the component of the many diverse forces remaining after every favorable adjustment has been made.

Experience has demonstrated that private citizens and organizations, however intelligent and devoted *per se*, seldom succeed in making the necessary adjustments. They may do valuable service in the formulation of plans, in bringing legitimate pressure to bear upon authority, and in educating the people to a realization of the need for civic comeliness; but their efforts are—in the nature of things—occasional, liable to partisan construction, and impotent either to enforce demands for improvement or to frustrate action inimical to progress. Only a permanent institution legally constituted, professionally competent, and clothed with adequate police power can hope to accomplish the desired results. Many of the larger American cities have realized this fact and have sought to provide continuous, expert, legal control of public art by the erection of art commissions as integral departments of government. Boston, New York, Philadelphia and Pittsburgh were the pioneers in this movement.

The Pittsburgh Art Commission was created by Act of the General Assembly of Pennsylvania in 1911, and has functioned continuously since that time. Credit for its creation belongs to the present mayor of the city, Hon. William A. Magee, who, during an earlier

Colonel Alexander Hawkins Memorial, Schenley Park, Pittsburgh. William Cooper, Sculptor.

term as chief magistrate, prevailed upon the legislature to pass it, and appointed the first commission. There are seven appointive members on the Commission, all of whom serve without compensation; and two ex officio members, the Mayor and the Director of Public Works. The personnel of the Art Commission at present is as follows: Edward B. Lee, John W. Beatty, Frederick Bigger, William Boyd, Willis McCook, William Larimer Mellon, Homer Saint-Gaudens, Charles F. Finley and William A. Magee. The law provides that the appointive membership shall consist of one painter, one sculptor, three architects, and two citizens not professionally engaged in the fine arts. Ex officio members lack the power to vote upon submissions.

The law under which the Pittsburgh Art Commission operates is unusually broad in scope. It gives the commission absolute jurisdiction in the acceptance, rejection, location, relocation, alteration or removal of all works of art which are the property of the city by purchase, gift, or otherwise, or which are placed upon property owned or controlled by the municipality. The term, "work of art," as employed in the Act, is construed to include all paintings, mural decorations statues, sculptures, monuments, fountains, arches, ornamental gateways, and other monumental or commemorative works, all public buildings costing not less than fifty thousand dollars and all bridges costing not less than twenty-five thousand dollars. Unique fea-

Bridge head sculpture, "PANTHER." Panther Hollow Bridge, Schenley Park, Pittsburgh. Giuseppe Moretti, Sculptor.

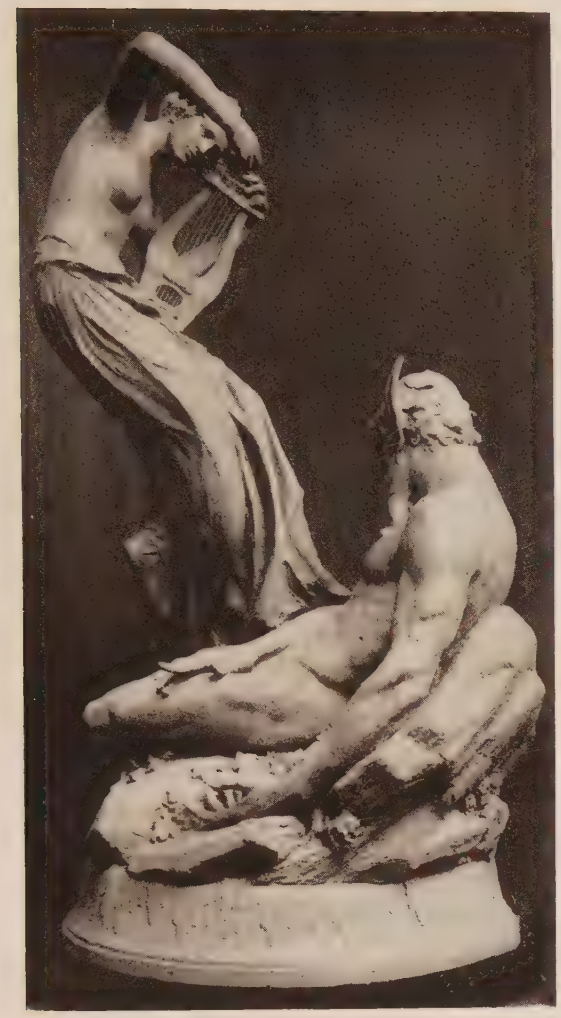
tures are: specific provision for the increase and preservation of the amenities of streets, parks, and public places; the right to prepare plans and to submit ordinances designed to improve the appearance of the city; and the privilege of extending service to persons or corporations requesting advice concerning the design or embellishment of private properties.

The first duty of the commission is to sit as a critical jury upon art projects submitted by citizens, organizations, and municipal departments. These projects range in size and importance from a bronze marker or the design of a street lamp to an elaborate monument, a huge public building, or a million dollar bridge. Each submission is carefully studied in respect to its intrinsic merit as a work of art, its fitness for the purpose intended, and its appropriateness to the proposd site. If found worthy, it is approved; if otherwise, it is rejected, or remanded to its source for correction and development. Although the commission never dictates specific design, and is not required by law to assist in the reordering of a rejected work, some of its most valuable services are rendered in voluntary advice and constructive criticism to sponsors of projects. This policy has made for a general elevation of standards and for a more enlightened cooperation on the part of the public.

Of course, many of the submissions offered are so hopelessly ugly, grotesque, or inappropriate that they must be condemned *in toto*. The rejection files of every art commission are rich in "horrible examples" of

Typical Boulevard Bridge, Pittsburgh, Pa. Stanley Roush, Architect for Department of Public Works.

Municipal Pool and Pavilion, Pittsburgh. Designed by Stanley Roush, Architect for Department of Public Works. Typical of five pools recently constructed.



Detail—Bronze figures "NATURE MUSIC," Schenley Memorial Fountain, Schenley Park, Pittsburgh, Pa. Victor Brenner, Sculptor.

monstrous things which the city has been spared, but which—in precommission times—would have been erected to affront the sight and outrage the artistic sense of the community. The commissions are the guardians of the public eye, protecting the aesthetic rights of the citizen just as the officers of safety protect his life and property. They stand between him and the well meant but ill advised projects of naive donors who are so freqeuntly the gulls of artistically unscrupulous monument-merchants and of those self-styled sculptors whose talents lie in the field of commerce rather than in the realm of plastic art. Because of the art commissions there can be no recurrence of the barbarities in stone and the crimes in cast iron which were perpetrated upon our fathers in the decades following the Civil War, and which still survive to shame and trouble us. Whatever our civic sins may be, our children

Bronze Bust of William Pitt, Lord Chatham. Reid Dick, A. R. A., Sculptor (London). Presented to the City of Pittsburgh (1922) by the Sulgrave Institution (London).

Robert Burns Monument, Schenley Park, Pittsburgh.
J. Massey Rhind, Sculptor.

may not justly charge us with this one. As Thomas Nelson Page so well said in a recent address, "*The work of the Art Commissions has been of immense service. They have saved us over and over again from becoming the butt of succeeding generations.*"

In the matter of public works the art commission insists that there shall be Beauty as well as the engineering virtues of safety, efficiency, and economy. It has demonstrated repeatedly that the difference between an ugly jumble of steel girders or clumsy concrete forms and a graceful bridge span or a dignified retaining wall is one not of added cost, but of art-trained intelligence applied to the given problem. It will have naught of the cheap and adventitious ornament which in striving to conceal defects, succeeds only in calling attention to them. It demands that Beauty which results from the rational and imaginative treatment of material, line, and mass in obedience to the established laws of architectural design.

Since its inception the Pittsburgh Art Commission has been working steadily for the artistic improvement of the city. Interested only in results, it has been content to labor quietly and to let the credit for achievement fall to whomsoever might desired it. The great Schenley Plaza Scheme—now nearing completion,— the achievement of architectural grace and dignity in the new Allegheny River bridges, the elaboration of plans for the development of the water front, the introduction of a staff of architects in the Department of Public Works, a programme of public education in civic art, and a service of advice for sponsors and designers of memorials, are but a few of the many constructive contributions which it has made and is making. A radical improvement in the design and character of public buildings, bridges, and monuments is evidence of its success and of its value to the community. The illustrations which accompany this article tell something of the story.

THE COLLEGE OF FINE ARTS

CARNEGIE INSTITUTE OF TECHNOLOGY

E. Raymond Bossange, *Director*

IN a memorable address, Monsieur Jusserand, French Ambassador, referred to Pittsburgh as a city of "beautiful smokes." The artist's point of view, more or less present in every Latin, thus revealed itself in M. Jusserand. While the disadvantages of smoke in a large city, (and Pittsburgh is no worse than many others), are so fully realized as to be the source of many jokes in the press, the pictorial quality of smoke is seldom appreciated by our guests. An atmosphere constantly changing by day and night, infinitely varied in color and tone, giving to all our scenery unusual interest, is only one of the characteristics which make Pittsburgh particularly fitted for a College of Art. Our winding rivers, meeting dramatically at the apex of the city after flowing by sixty miles of mills, supply the picturesque incidents of river and canal life; the steep hills and deep valleys, the farms and woods, the tenements and ghettos in the flats or scrambling up the arid slopes; the millionaire palaces on the hills; the skyscraper in close contrast with the cliffs; a civic center with fine memorials and public buildings: all these contribute to make Pittsburgh one of the most interesting cities in the world.

Yet it is not only pictorially that Pittsburgh is unusual. No city possesses a more cosmopolitan population; and since the labor class is but little touched by American life and customs, we have local color of almost every variety. Pittsburgh is indeed the melting pot; but the melting has only just begun, and European customs and manners are found almost in their original state. Here we have all grades and conditions of society, and therefore all problems of life.

The rapid progress of the able man means constant change and adaptation, and the rigid traditions and conventions which often hamper the European artist and art school are absent. The air is full of stimulating possibilities, the people are surcharged with ambition, new problems on every hand offer big rewards for success. Thus the painter finds here wonderful contrast, marked types, marvelous pictures of mines, mills and rolling country; and the decorator and illustrator, infinitely varied subjects—the shop, the farm, the city street, and varied incidents in the struggle for life. The dramatist discovers every problem, tragic or comic, in the different temper of the nations represented. The architect has new problems requiring new forms, new wealth to express, and plenty of local material. The musician has the contributions of all nations—folk songs, dances and the musical temperament of Southern Europe to help. The artist in the field of applied art finds pottery, metal and glass products, electric appliances to be beautifully conceived, and in every direction opportunity for the application of his art. What a chance for really great artists to generalize these things, to feel and express the soul and spirit of them, and to interpret Pittsburgh to the world!

The College of Fine Arts thus finds itself in the midst of an intensely stimulating atmosphere in which opportunity is always present. But the spirit of the past is by no means absent. The fine

The College of Fine Arts Building, Carnegie Institute of Technology.

Theater, College of Fine Arts, Carnegie Institute of Technology.

Sculpture Studio, College of Fine Arts, Carnegie Institute of Technology.

casts and paintings in the Carnegie Institute, the masterpieces in the collections of our citizens, our well supplied libraries, and above all the respect for the standards of the past which results from careful instruction, make our students familiar with the best the world has produced as they face the demands of the present.

Our policy differs from that of the usual art school or conservatory of drama or music, for we require a High School certificate for admission; and our students must devote a considerable part of their time to general studies. In this policy we have been pioneers. We assume that to become a useful artist a man must know history, must be in direct sympathy with at least one other nation through its language, must know something of science and literature, and possess enough general education to have a sympathetic understanding of the meaning of life about him, its problems, ambitions, and traditions, and the longing of the people for happiness. Our history courses emphasize the spirit of the different periods, the ambitions and emotions which have influenced art, rather than dates, names and cold records of events. In short we require the general education of a bachelor of arts, as well as the fundamental technical training of the professional artist, before we award our de-

Technical Library, College of Fine Arts, Carnegie Institute of Technology.

gree. We try to fit our students for the career of an artist by broadening their sympathies and developing their social instincts.

We are different also in the fact that under one roof we are able to bring all the arts together. Thus we offer every student the opportunity to learn something about the other arts as he specializes in his own. The architect studying painting and sculpture, the musician learning the rhythm of dancing and the movement of drama, the illustrator drawing from the living model and the elements of design, each is surrounded by specialists full of enthusiasm in that allied field. Each borrows from the other suggestions of technic, of methods. They discover general principles underlying all the arts. But above all, an atmosphere is created which makes an inspiring background for every course, an atmosphere in which the student is not ashamed to have emotions, and acquires the artist's point of view, his enthusiasm, his love of life and his fellowmen; and most important, an atmosphere in which one may develop imagination.

Our large faculty is made up of professional men and women, all masters of the technic of their specialty. We attach more importance to professional experience and to the ability to demonstrate and perform than to pedagogical knowledge. We offer several options in each of our six departments, and each option requires four years of work for

Exhibition Room—Class in Folk Dancing, College of Fine Arts, Carnegie Institute of Technology.

the average student. In architecture, we have a course for those who are primarily interested in design, and another for those to whom construction particularly appeals. In music, we have courses for the instrumentalist, the vocalist, the composer, the teacher, and the music supervisor. In drama, we prepare students as producers or actors, or we give them the fundamentals of playwriting. In applied art, we have courses for those specializing in crafts, in costume design, advertising design, interior decoration, and for those proposing to teach. In our Department of Painting and Illustration, our students may specialize in landscape, portrait or mural painting, or may take a course in Illustration, which gives them complete experience in what is usually called Commercial Art. Our Department of Sculpture offers a thorough course in all phases of modelling from cast and figure, and later in original work.

We insist on the fundamentals. We believe that few are so blessed by nature as to become well-trained artists without drawing from cast, playing scales, doing diction exercises, or drawing the classic orders in architecture. Artists must be put through a series of typical problems progressively arranged, to acquire the experience of professional life. Our work, especially in architecture and painting, takes the

form of problems capable of more or less individual solutions. In all cases we begin by studying the general scheme, the big motif or plot, as the French do at the Ecole des Beaux Arts. The central theme is then developed, and the details studied and worked out, but always in harmony with the fundamental idea. As far as possible we relate these experiences to the past, so that our classic inheritance is intelligently appreciated and used. We are not interested in teaching one prescription, one method for one job, but rather in affording a general experience to make men and women approach competently any problem they may be called upon to solve.

While our scholastic requirements make it possible only occasionally to take boys and girls below the age of seventeen, we emphasize the necessity of starting students as young as possible, while the muscles are very flexible and the mind and senses most impressionable. In order to supplement the work done in the High Schools and to make the most public use of our facilities, we extend to certain selected High School students the privilege of coming to us every Saturday morning for exercises in the arts. These courses feed our regular four-year courses, and have the great advantage of bringing boys and girls into the atmosphere of the arts so that they may acquire the point of view, and develop the imagination of the artist.

Our building, with its great halls and vestibules, makes the realization of our endeavor not only possible, but comfortable and inspiring. The theatre which is used for dramatic performances, many concerts, and general lectures, is one of the best equipped little theatres in the country. In connection with it we have a green-room, several rehearsal rooms, a costume-making room, a scene-painting loft with counter-balanced frame, where the students paint scenery, and several property rooms. Our costume room contains about twelve hundred costumes, most of which have been made or remade by our students. The celebrated Poel collection of Elizabethian costumes and stage properties has become the property of this institution, thus enabling us to produce plays of that period in an authentic manner. Here our students learn all the phases of dramatic art. The big exhibition room gives us an opportunity to display the work of our students, and interesting loan exhibitions. The library on the main floor is well supplied with technical books, photographs, illustrations, and slides. Our Sculpture Hall contains a fine collection of casts. In the Hewlett Collection we have an interesting beginning for a museum of industrial art. Our Music Department has about twenty-five practice rooms; our Department of Architecture two large drafting rooms; our Departments of Applied Art and Painting and Illustration offer six studios, two drafting rooms, pottery, and jewelry workshops, and four classrooms. We provide about twenty faculty members with private studios.

We are therefore prepared to train artists of different types, and by combining the work of certain departments we can extend our program. Last year our Departments of Music and Drama produced three short operas in a creditable manner. We are now discussing a course in belles-lettres. At these operas and the many performances given by our Drama students (last year there were thirty-three plays and one hundred and forty-two performances), by our concerts and recitals, of which we

Foyer—College of Fine Arts, Carnegie Institute of Technology

had twenty-eight and our many exhibitions, we are in touch with perhaps sixty-five thousand people a year. Our large faculty exhibition in Carnegie Institute attracted about six thousand visitors. The Music Department supplies much music to the city. Students and former students play in churches, theatre, hotel and cinema orchestras, and in private entertainments. The Drama students direct the productions of plays in schools, clubs, and organizations of all kinds. Our architects spend their vacations and spare moments in the offices of architects down town. The Applied Art students are found in the decorator's stores, with printers or advertising agencies, and in many industries and others produce posters for organizations of many kinds.

The relation of the museum and the art school to the community in Europe and in the United States differs much. In Europe the museum results from a gradual accumulation by generations of collectors and by the nobility and the state. Some of the objects are placed in a museum for safekeeping and incidentally for the public benefit. Many of the schools in Europe have grown up about great personalities, and answer a demand from the art-patrons and municipalities or states, for artists to execute commissions. In the United States the museum or the School is frequently a pioneer. It must create a knowledge of and a desire for art, and awaken an appreciation of beauty and a longing for it, so that the part beauty plays in life may be understood, and likewise how life may be enriched through it. Thus is created the interest in art, and in artists to give it birth. Our schools not only supply a need, but do much to rouse it; and it is part of our work to arouse the desire for beauty.

The dominating importance of our mines, mills and industries make this city primarily a materialistic center. A large part of the population is occupied with raw materials. In such a center the need of art is all the greater because little of it finds its way into the lives of those who toil. Thus it is our duty to lift by our art the community out of its materialism, to contribute to its refinement and civilization, and by developing appreciation, by training as many as possible in self expression, to bring recreation and a higher form of happiness to its workers. In a restless city such as ours, art can perhaps do more than science to make the workmen feel that life after all is worth living even in the midst of smoke and noise and crowded tenements, if the hidden beauties are revealed by the artist. The people must be aroused to the possibilities of civic development and in our case to a new type of civic center, because in Pittsburgh Herron Hill stands where the civic center ought to be. Many unusual possibilities, some natural, others accidental results of industrial organizations, have been overlooked, which in time will contribute to the attractions of our city. In this great program our first aim must be to produce useful artists. Of course, art will not thrive without the collector, the art patron and the connoisseur; but our biggest task is to contribute the creative artist.

Pittsburgh must not represent in the public mind, the workman trodden down by the wheels of industry; on the contrary it should symbolize the triumph of man over matter, the mastery of the machine, and liberation and privilege through organization. This triumph will some day be expressed by works of art ranking in inspiration with the great cathedrals themselves.

"Vera," by Fred A. Demmler. Presented by the One Hundred Friends of Pittsburgh Art to the Public Schools of the City of Pittsburgh, in 1917.

"Louise," by Malcolm S. Parcell. Presented by the One Hundred Friends of Pittsburgh Art to the Public Schools of the City of Pittsburgh in 1918. This painting was awarded First Honor in the Annual Exhibition of the Associated Artists of Pittsburgh and later was awarded the Edgar Saltus Medal at the Spring Exhibition of the National Academy of Design in 1919.

ONE HUNDRED FRIENDS OF PITTSBURGH ART

By JOHN L. PORTER

IT is not so strange, that there are "One Hundred Friends of Art" in Pittsburgh, as it is, that this same kind of an organization does not exist in every city of ten thousand people, or more, throughout this broad land.

That there are one hundred persons in every reasonably sized city, whose interest in art matters amounts to more than a passing glance, and who would gladly have it known, by membership in any kind of an organization which had for its purpose the encouragement of all art development in the city, goes almost without saying; and, such a fact conceded, there only remains the necessity for some one to propose to half a dozen friends, the formation of an organization, and the work is over half done.

Many people admit that they know little or nothing of art, and ascribe as the reason for it that their early lives were so filled with being educated, and with the diversions of youth that they never had acquired a taste for art objects until late in life, and, then were not inclined to devote the time necessary to perfect their knowledge or capabilities for discernment. In consequence, the only appeal to such, today, of any paintings, sculpture, illustration or other work of art, is through its beauty of color, extraordinary conception, peculiarity of design, or some other like element.

How many people know anything about the real rudiments of drawing, the conception of a painting or sculptural group, the processes of their development, the methods of obtaining hundreds of shades in colors, the values of light and shade, the designing of a monument or a public building, the landscaping of the surrounding property, the ingenuity necessary to the making of fine pottery and glassware, the subtleness of carving, the value of decoration and a hundred and one other things equally important? We venture to answer the above by saying, "Not one per cent of our population."

Under such circumstances, any movement looking to the raising of this percentage is entirely justifiable, and thoughts like these were responsible for the formation of what seems to be the pioneer effort in this country for bringing the artist to the child in the Public Schools, where daily contact with art objects must, eventually, leave some kind of an impression upon even the most stupid and unobserving.

What has been accomplished in Pittsburgh along this line may prove interesting reading to the readers of ART AND ARCHAEOLOGY.

Early in 1916, the writer sent letters to about five hundred of his friends importuning 99 of them to join him in a voluntary organization, in which each member would agree to donate ten dollars a year, for five consecutive years, in order to establish a fund of one thousand dollars, annually, to be used for the purchase of paintings from the Annual Exhibition of the Associated Artists of Pittsburgh.

This plan had for its principal objectives: the quickening of the local art efforts, the formal recognition and approbation of the local art association, the incentive for all artists to join the local association, thereby securing an opportunity to have their works displayed, and possibly purchased by the

"Curtained Window," by W. A. Readio. Presented by the One Hundred Friends of Pittsburgh Art to the Schools of the City of Pittsburgh, December 1921.

One Hundred Friends; and more especially the opportunity presented for, some day, being able to point with pride to the fact that their paintings were in a permanent collection.

"Permanent Collection!" What an incentive to the artist! The goal of all art workers' ambitions and the agent of fame, through which a record everlasting, is made of one's efforts while resident on this plane of life's journey, and a record after tomb-stones have vanished, which tells one's success to the succeeding aeons.

That we should look to perpetuating this effort through some medium whose functions were closely allied in some manner to the municipality, thereby insuring continuity of interest, was conceded, and when the Public Schools were chosen as the medium best adapted for our purposes, the plan was most heartily commended from all sides.

Imagine if you can, for a moment, the effect of this movement upon our community. Can art appreciation be taught at any better period in life than when the youthful eyes and mind are in their most impressionable and temperamental years? Can squalor exist in the surroundings of the children

"A Bucks County Landmark," by George W. Sotter. Presented by the One Hundred Friends of Pittsburgh Art to the Public Schools of the City of Pittsburgh in 1918.

brought into daily contact with beauty?

In bringing art to the Public Schools we are creating standards unconsciously and that these standards are indelibly fixed, is becoming more apparent each year through the increased attendance at our Exhibitions.

The result of the first six years' efforts of the "One Hundred Friends" is a collection numbering 28 paintings by 22 artists, and so important are many of them that they are freqeuntly sought by the Art Museums of the country for exhibition purposes.

That the Public School Collection of Pittsburgh, given by the *One Hundred Friends of Pittsburgh Art*, may some day contain paintings of exceptional value is not only a possibility, but judging from its present importance, a probability, and who can tell but that its influence will have much to do with producing some day, one of the world's greatest artists.

Who can measure the value to the unborn generations of Pittsburghers? Many masterpieces have come from less auspicious beginnings and they did not have the advantage of having been selected in their day, as being even worthy of preservation and of a place in a permanent collection.

THE ART SOCIETY OF PITTSBURGH

By Edwin Z. Smith

DURING this coming winter of 1922–23 The Art Society of Pittsburgh will celebrate the 50th anniversary of its organization. In its constitution will be found the declaration that it was founded for the "purpose of cultivating and promoting music, painting and other fine arts among its members and the public at large." At this half-century milestone of its existence it may be interesting and profitable to note how far this expressed program has been carried out and in what ways the development of artistic taste in Pittsburgh has been encouraged and assisted by the Society. Its history, from a small, informal group of people who loved the more beautiful things of life, to the present large and constantly increasing membership of many hundreds, has been often told, and the achievements of the Society on the musical side of its activities are well known and thoroughly appreciated.

Undoubtedly, no musical enterprise has had so permanently an inspiring effect upon this community, nor proved so fruitful of splendid and far-reaching results, as its establishment and maintenance for fifteen years, of the Pittsburgh Symphony Orchestra. Alas! that its existence is, for a time, suspended; and hasten the day when this city may again boast of this crowning evidence of true musical culture! But while the importance and usefulness of the Society as friend and promoter of good music is well recognized, its cultivation of the other fine arts is not so well known. In its early days the number of its members respectively interested in music and painting was about the same, and its bi-monthly meetings were equally enlivened by programs provided by its musical associates and by the exhibition of paintings executed and hung by the artists of its membership. In later years, however, as the Society grew larger in members and wider in horizon, the two interests were separately provided for, and from the time of the completion of the Carnegie Institute in 1895, practically all its concerts, receptions and exhibitions were held in the various halls and galleries of that hospitable building.

On the side of pictorial and plastic art, the activities of the Society have taken a wide range and, it can with confidence be said, have had a large influence in the germination and blossoming of the art idea in Pittsburgh. The following list of exhibitions, taken more or less at random from the archives of the Society, demonstrates the catholicity of its interest and the judicious excellence of its selections.

Of the early exhibitions, one of the most important, from both the historical and artistic points of view, was a loan exhibition held in 1900, of portraits in oil of former prominent residents of Pittsburgh and vicinity. Necessarily there was no attempt made to conserve the highest standards of art, but there was, nevertheless, much good artistic work shown and the exhibition was very popular and successful. Among the local painters represented were many such well known names as Lawman, Wall, Dalby, Blythe, King, Waugh, Wilson, Leisser, Poole, Hetzel, Walz and Foerster—most of them now deceased; and there were many works of such non-resident

artists as Darley, Romak, Delmain, Sully, Huntington, Strickland, Johnson, Munzig, Hildebrand and others. Almost all the prominent and pioneer families of this section were represented among the subjects of these portraits.

In 1908 a fine collection of water colors by American artists was exhibited, and during the season of 1910 there was an exhibition of small bronzes, of great merit, by American sculptors; and, with it, a show of Joseph Pennell's etchings.

In the winter of 1911, an exhibition of the paintings of John W. Beatty, then Art Director of the Institute, was opened with a reception to the artist; and, in the same season, there was a second exhibition of water colors of American painters.

In 1912 an exhibition of the "Artistic Industries" of this country was assembled and shown from February 21 to March 13. Such exhibitions as this have in them possibilities of great usefulness, in propagating a correlation of the artistic and the practical. Their selection and arrangement exacts a very great amount of arduous labor, but no exhibitions are more valuable, suggestive and artistically productive.

In 1913 another fine exhibition of small bronzes, collected by the National Sculpture Society, was held, and in the spring of 1915 a collection of the unique and interesting paintings of Odelon Redon was shown.

The season of 1916–17 was marked by by a striking exhibition of the work of Leon Bakst, and during the same winter there was a third exhibition of small bronzes by American sculptors, also a show of lithographs, pastels and portraits by Albert Sterner and another of lithographs by members of the Senefelder Club.

In the Spring of 1917 was given an especially noteworthy exhibition of water colors from the American Water Color Society; and with it, a very interesting collection of works of American illustrators.

For art exhibitions of such varied interest and high standard as the examples mentioned, the Art Society has stood sponsor and it has, in addition, from time to time arranged many lectures, by distinguished artists and critics, upon subjects germane to the various branches of art. It has established an annual prize in connection with the exhibition of paintings of the Associated Artists of Pittsburgh and was largely responsible for the erection of the Russell Hewlett Memorial, a fund collected and named in honor of a deceased president of the Society, the income of which is devoted to prizes and honorariums to artists and art students.

It may safely be said that the general effect of the Society's activities outlined above, has been widely educational and artistically inspiring; and a very great deal of credit is due to this disinterested body, through whose instrumentality so many admirable examples of the beauty, grace and excellence of pure art have been brought to the vision of the people of this city. During the past few years the Society has been placing more and more emphasis on the musical side of its work. It is true that other organizations have supplied a number of the minor exhibitions through which it was accustomed to pay its debt to the other branches of art. It is a matter for regret that its policy has, perhaps of necessity, been so changed and it is to be hoped that it may revive its interest and activity in this fine and useful part of its appointed program.

ARCHAEOLOGICAL NOTES AND NEWS

General Meeting of the Archaeological Institute of America

The twenty-fourth General Meeting of the Archaeological Institute of America will be held in conjunction with the American Philological Association, the American Historical Association and the American Association of University Professors at Yale University, New Haven, Conn., December 27–29, 1922. The Annual Meeting of the Council of the Institute will be held during this period. Members of the Institute and others who wish to present papers at the meeting are requested to inform Professor David M. Robinson, General Secretary, Johns Hopkins University, Baltimore, Md.

Museum of the American Indian, Heye Foundation, Officially Opened

The Museum of the American Indian, Heye Foundation, which has occupied the large and impressive building at Broadway and 155th Street for the past six years, was officially opened November 15, 1922, at a notable reception. Representatives of the Government and of Museums throughout the country passed through the large exhibition halls and viewed the 1,800,000 specimens typical of the Red Man's culture. As the collections are gathered from every portion of the three Americas, the Heye collection has both a national and international significance. This is the only institution in the country devoted exclusively to the records of the races which inhabited this continent prior to 1492.

The Archaeological Institute of Yucatan

An organization, called the Archaeological Institute of Yucatan, has recently been formed in New York to carry out a vast plan of exploration and archaeological work in the part of the Yucatan Peninsula which was settled a thousand or more years ago by the Mayas, who had the highest civilization of the Western Hemisphere until it was destroyed by the Spaniards in the sixteenth century. R. A. C. Smith was elected President, and John S. Prince, Secretary. William Barclay Parsons is the Chairman of the Executive Committee and the New York Board of Directors includes Edward L. Doheny, Marshall H. Saville, C. W. Wickersham, Minor C. Keith, Clarence L. Hay, Stansbury Hagar, John F. Barry, Charles D. Orth, Jerome S. Hess, R. de Zayas Henriquez, Benjamin F. Gates and Raymond E. Jones. Felipe G. Canton of Merida, Mexico, who has been active in promoting researches in Yucatan, was elected an honorary President.

A large party of scientists and business men will make the trip from New York to Yucatan next February and make an inspection of Uxmal and Chichen-Itza, the two greatest Maya cities thus far opened up. The Carnegie Institution and other foundations are expected to resume excavation and research work in Yucatan at an early date.

American School at Athens Notes

A supplementary campaign of excavations was conducted by the School at Zygouries, near Mycenae, toward the end of the summer. The object of the excavations was to secure more information as to the extent and plan of the potter's shop uncovered last year (see the May number of ART AND ARCHAEOLOGY) and to find the Early Helladic cemetery. Both of these objects were realized. The potter's shop was found to be a large building with a corridor and three rooms in addition to those previously excavated. In one of these rooms was brought to light another large store of pottery consisting in this case chiefly of large craters of the late Mycenaean period.

The cemetery, on a hill some distance to the west of the site, proved to have been used continuously through all periods. Three Early Helladic ossuaries were discovered. In one, a shallow oval depression partly covered by a natural ledge of rock, lay 15 skulls and quantities of bones not in order; in another 12 skulls, and in the third three. The objects found in the graves, including pottery, were scanty and simple; but two interesting gold ornaments came to light.

Graves of the Middle Helladic period and two Late Helladic chamber tombs were also found, producing a considerable amount of pottery. A Geometric vase in a railway cutting near by yielded a bronze ring and two vases. No undisturbed Classical Greek graves were uncovered. but more than thirty shaft-graves of late Roman times were found. From one of these came a bronze coin of Canstantius Gallus, on the evidence of which these graves may be dated in the middle of the fourth century of our Era.

3095 1

Square Bronze Vase—Type fung tsun—Chou Period (1123–247 B. C.). The most important Archaic Chinese Bronze known.

Square Bronze Goblet—Type fung kia—Shang Period (1783–1123 B. C.). Probably the only one of its type in existence.

Archaic Chinese Bronzes

According to Dr. Berthold Laufer, head of the Field Museum of Chicago, the collection of archaic Chinese bronzes, owned by Parish-Watson & Co. Inc., and now on exhibition in their galleries, "easily takes the lead and foremost rank in quality among any gatherings of bronzes that have ever been permitted to pass the borders of China."

The collection includes five superb examples of the Shang period (1783–1123 B. C.), four specimens of Chou bronze art (1123–247 B. C.), and one Han piece (206 B. C.—220 A. D.).

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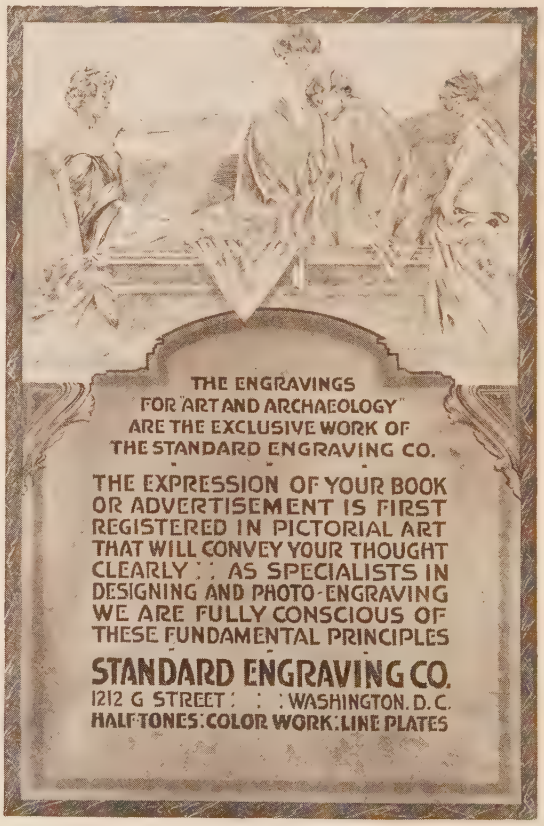
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